



COCO BEACH

From City Dump to Paradise

A design proposal for a public beach in Dar es Salaam, Tanzania



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Ulinad Karlsson
Emelie Karlsson

Asante sana!

Mina & Emelie
Uppsala 2015-01-21

ABSTRACT

Sub Saharan Africa has during the last decade become the world's fastest urbanizing region. This change is concentrated to a few metropolitan areas one of them being Dar es Salaam, the largest city of Tanzania. Since the 1960s Dar es Salaam has grown from being a relatively small coastal city of approximately 300 000 people to become a bustling urban centre of four million inhabitants. This development has had a major impact on the city structure, which in turn has affected people's welfare and the surrounding environment. One such consequence is the detrimental loss of urban vegetation and open areas in the city. The coastline of Dar es Salaam is today part of the larger green spaces in the city still left largely untouched and available for recreational purposes. However the coast is also a large economic asset, this in combination with the existing pressure of urban expansion is rapidly changing the coastal appearance. Economic enterprises such as hotels, shopping centres and privatized beaches are spreading and contributing to an increasingly fragmented coast limiting the public accessibility. The coastline of the Msasani Peninsula is one of the more exploited stretches in the city. Intriguingly though it is also there that Dar es Salaams most popular public beach "Coco Beach" is located. It is visited by several hundreds of people each week and the area functions similar to a city park. However Coco Beach is not being maintained appropriately. No design interventions have been implemented; there is a high level of pollution and a lack of necessary facilities. In the fall of 2014 the Kinondoni Municipality Council published a new redevelopment proposal for the entire east coast of the Msasani Peninsula including Coco Beach. However included in this proposal are various semi-private establishments which may in fact further limit the public accessibility of the beach area. This thesis proposes an alternative design for Coco Beach, with the objective to keep the area completely public. It argues for the benefits that this will provide the city and why we believe it is important for the entire area to be free of charge and open to all city inhabitants independent of economic status. The design strengthens and improves the present qualities of Coco Beach and targets its weaknesses. This is accomplished by focusing on four main keys; Health, Nature, Education and Culture, anchoring the design socially, environmentally and locally. The Coco Beach Park stretches over a length of

2 kilometres. The area is lined by palm trees, emphasizing the name and giving a strong sense of local identity. The park further consists of four areas with different characters, focusing on various activities. These are connected through a design language inspired by the ocean waves. This project could act as a guideline for further public developments along the Tanzanian coast.

SAMMANFATTNING

Detta examensarbete är utfört som en Minor Field Study med utgångspunkt i Dar es Salaam, Tanzania. Projektet är finansierat av ett stipendium utfärdat av styrelsen för internationellt utvecklingsarbete, SIDA.

INLEDNING

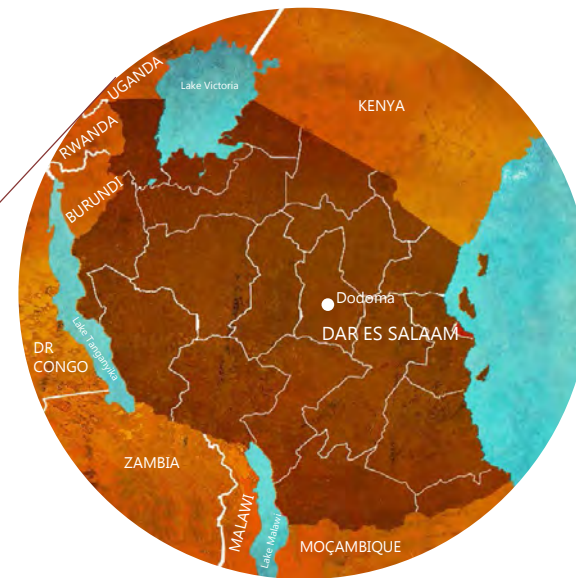
Sedan början av 1900-talet har världens befolkning ökat i en otroligt snabb takt. Denna ökning har framförallt skett genom urbanisering av världens utvecklingsländer. Subsahariska Afrika tillhör idag den region som urbaniseras snabbast i världen, med en genomsnittlig befolkningsökning på 5 procent per år växer regionen dubbelt så fort som Latinamerika och Asien (UNICEF 2012, p. 4). Urbaniseringen är centrerad till några få storstäder, en av dem är Dar es Salaam, den största staden i Tanzania. Sedan 1960-talet har Dar es Salaam växt från att vara en liten kuststad på cirka 300 000 människor till att idag vara en hektisk storstad på 4 miljoner innevånare (UN-HABITAT 2010 p. 17, UNISDR 2012, p. 14).



Subsahariska Afrika tillhör idag den region som urbaniseras snabbast i världen.

Den snabba stadsexpansionen har haft stora konsekvenser på Dar es Salaams folkhälsa och stadsuppbyggnad, en konsekvens är stora förluster av stadens grönområden.

Kusten är idag ett av Dar es Salaams större bevarade grönområden som fortfarande är tillgängligt för rekreation. Dessutom är kusten en stor ekonomisk tillgång för staden och landet som helhet. De ekonomiska fördelarna i kombination med ökad befolkning och kustexploatering orsakar dock stora förändringar på dess karaktär. Hotel, köpcenter, privatiserade stränder och bostadsområden breder ut sig och bidrar till en mer fragmenterad kust som försämrar den offentliga tillgängligheten. Det finns lagar som syftar till skydda kusten och bevara den offentlig för allmän tillgång. Dessa lagar är dock motsägelsefulla och öppna för olika tolkningar vilket har resulterat i dagens problematiska situation.



Kusten längs Msasani-halvön är ett av de mer privatiserade kustområdena i staden. Trots det är det också där som Dar es Salaams mest populära offentliga strand ”Coco Beach” ligger. Stranden besöks av flera hundra invånare i veckan och fungerar lite som en stadspark. Trots Coco Beachs popularitet är stranden oorganiserad och mycket dåligt underhållen. Strandområdet saknar också en helhetsgestaltning som är anpassad för det höga besöksantalet. Detta har resulterat i en farlig förorenad miljö som saknar nödvändiga faciliteter som toaletter och omklädningsrum.



Dar es Salaams mest populära strand ”Coco Beach”.

I början av hösten 2014 publicerade den ansvariga kommunen för Coco Beach ett utvecklingsförslag för just denna del av Msasani-halvön. Dock inkluderar detta förslag också affärsverksamheter som kan bidra till att Coco Beach blir mindre tillgänglig och förlorar den karaktär som området har idag. Denna uppsats beskriver ett alternativt gestaltungs-förslag för Coco Beach med syftet att behålla parken helt offentlig.

Vår huvudfrågeställning är:

- Hur kan Coco Beach bli en välfungerande offentlig strand samt en förebild för fortsatt utveckling av Dar es Salaams kust?

För att kunna besvara denna fråga har vi också undersökt:

- Hur hänger Coco Beach ihop med staden och hur uppfattas platsen av invånarna?

- Vilka bygg- och planeringslagar omfattar kusten?
- Hur används Coco Beach och vilka intressenter är involverade i området?
- Vilka är strandens största styrkor och svagheter?
- Hur utvecklar man ett fungerande gestaltningsförlag för Coco Beach utan att förlora strandens starka identitet?

AVGRÄNSNINGAR

Uppsatsen är enbart fokuserad på planerade offentliga områden i form av stränder längs Dar es Salaams kust. Uppsatsen är ytterligare avgränsad genom att endast grundligt undersöka en offentlig strand ”Coco Beach”, i förhållande till ett fåtal andra privatiserade stränder. Inga jämförelser har gjorts mellan olika offentliga stränder. Däremot har de större stränderna längs kusten kartlagts i syfte att skapa en generell överblick över kustens tillgänglighet.

MÅLGRUPP

Uppsatsen riktar sig till Kinondoni kommun och andra tanzanianska myndigheter i syfte att inspirera till ett mer positivt synsätt gällande offentliga platser samt att belysa fördelarna med att bevara Coco Beach offentligt. Uppsatsen riktar sig också till de som bor och vistas på Msasani-halvön. Vi vill också inspirera landskapsarkitekter i Dar es Salaam och runt om i världen till att göra liknande projekt. Slutligen så riktar sig också uppsatsen till Sida som har bidragit med stipendium och gjort detta projekt möjligt.

METOD

För att undersöka Coco Beach har vi valt att göra en fallstudie. Fallstudien kombinerar flera olika metoder för att belysa ett projekt/fall från olika perspektiv (Johansson 2003).

Vi har använt oss av tre huvudsakliga metoder:

- Litteraturstudier
- Platsbesök som inkluderar inventering, observation och samtal med strandbesökarna
- Halvstrukturerade livsvärldsintervjuer

Den insamlade information analyserades med hjälp av Gehl-, Lynch- och SWOT-analys. Designprocessen pågick under hela arbetets gång, men det var inte förrän vi var tillbaka i Sverige som den slutgiltiga gestaltningen och konceptet tog form. Gestaltningsprocessen började med skisser och inspirationscollage på papper och fortsatte sedan med de digitala verktygen AutoCAD, Photoshop, Illustrator och Indesign.

BAKGRUND

Vi förstod snabbt att Coco Beach har en stark koppling till dess historia, staden och de aktiviteter som sker där idag. För att få en förståelse för detta har vi ett omfattande bakgrundskapitel.

Tanzania har under många år varit kolonialiserat och styrts av utomstående ledare. År 1961 blev landet självständigt och har sedan dess varit ett stabilt demokratiskt land med ett flerpartisystem. Idag räknas landet som ett av världens fattigaste länder (NE 2014). Dar es Salaam har stora problem med bostadsbrist, avfallshantering, vattenförsörjning, översvämningar och trafikstockningar (World Bank 2012, p. 181). Dessa problem påverkar Coco Beach både i indirekt och direkt mening. Till exempel, förutom att besökarna skräpar ned på plats spolas det dagligen upp mängder av avfall från havet. Detta avfall kommer från de större floderna som används som illegala dumpningszoner i brist på ett väl fungerande avfallssystem i staden. Förutom bristande infrastruktur är segregation och kriminalitet allvarliga problem i Dar es Salaam. Coco Beach ligger på Msasani-halvön vilket

under kolonialtiden var ett område endast ämnat för Européer. Även om detta område idag är ”tillgängligt” för alla så är segregation fortfarande påtaglig, speciellt i denna stadsdel. På Msasani-halvön bor främst människor med en högre ekonomisk inkomst, varav många är av utländskt ursprung. Till exempel så ligger de flesta ambassadörers bostäder i detta område.



Sopavfall vid Msimbaze floden.
Foto: © Amanda Larsson



Översvämning efter skyfall.



Trafikstockningar. Foto: © Linn Nilsson

GESTALTNINGSFÖRSLAG

För att underlätta gestaltningsprocessen omvandlade vi analysmaterialet till ett gestaltningsprogram bestående av fyra större programpunkter;



Hälsa – förbättra miljön för besökarna!



Natur – förespråka urban natur!



Utbildning – skapa en plattform för utbildning!



Kultur – förstärka essensen av Coco Beach!

Målet med programmet är att lösa de största problemen men bevara den atmosfär som finns på Coco Beach idag.



Illustrationsplan.

Det som främst inspirerat vårt formspråk är Indiska oceanen och det tidvatten som påverkar Coco Beach. Det har också varit viktigt att i största möjliga mån integrera lokala material och inhemska växtarter. Vårt förslag är uppdelat i fyra större delar baserat på dess skiftande karaktärer. Följande är en kort beskrivning av varje enskilt område;

THE MARKET

Denna del är en upprustad version av den befintliga marknadsplatsen. Här finns marknadsbord under skuggande tak, lekplats, återvinningscentral, toaletter och parkering-splatser.



Solnedgång vid marknadsplatsen.

THE BEACH PARK

Denna del är ett avlångt grönområde som i huvudsak är konstruerat för att motverka erosion. Området är en klassisk parkmiljö med dekorativa växter, parkbänkar, toalett, omklädningsrum, duschar och pick-nickbord.



Dekorativa växter i parkmiljö.

THE EVENT AREA

I denna del ligger en befintlig restaurang vars utomhus-servering har rustats upp och integrerats med en offentlig gångväg för att öka tillgängligheten längs med stranden. Området har försetts med en återvinningscentral, angöringsplats, parkeringar och bajaji-hållplats. En av de större parkering-

syterna kan användas till större event och aktiviteter. Intill återvinningscentralen finns ett antal odlingslotter där odlingssprojekt kan arrangeras och kompost kan återanvändas.



Odlingslotter intill återvinningscentralen.

THE FOREST

Denna del är den mest vegetativa av dem alla. En utmätt joggingslinga slingrar sig genom området och passerar ett utomhusgym och utbildningscenter med utställningslokal och amfiteater som kan användas för föreläsningar.



Coco Beach utbildningscenter och utställningslokal.

DISKUSSION

Att göra ett gestaltungsförslag för en offentlig strand kan kännas ytligt i en stad där människor kämpar för att överleva dagen. Men det är just i dessa typer av snabbväxande storstäder som urbana parker spelar en otroligt viktig roll för människors välmående. Gröna ytor får ofta stryka på foten för en snabbt ökande befolkning och informell stadsutbredning. Under vår fältstudie i Dar es Salaam förstod vi snabbt att Coco Beach spelade en viktig roll för stadens invånare vilket stödjer relevansen av vår frågeställning. Det blev också uppenbart att kommunens definition av ordet offentligt skiljde sig från vår. Även om kommunen vill utveckla ett offentligt förslag för Coco Beach betyder det nödvändigtvis inte att det kommer vara gratis att använda parkens olika delar. Detta såg vi som ett stort hot mot den idag offentliga stranden då förslaget kan tänkas rikta sig mot en ny målgrupp med större ekonomisk tillgång.

Att komma som ny till ett land med annorlunda förutsättningar och kultur kan innebära att man ser saker med nya ögon men också att man har svårare att förstå vissa saker. Därför har det varit viktigt för oss att undersöka landet som helhet och koppla detta till Coco Beach. Vårt bakgrundskapitel behandlar de delar vi fann relaterade till projektområdet. Platsobservationerna och samtalen har varit otroligt viktiga för att greppa den tanzanianska kulturen.

Gestaltningssprogrammet hjälpte oss att fokusera på rätt saker. Vi anser att vår gestaltning har skapat förutsättningarna för en välfungerande offentlig park. Dock är många av lösningarna beroende av en fungerande kommunal administration, vilket är något vi inte kan påverka. Vi har valt att lägga stort fokus vid utbildning eftersom vi anser att det är det viktigaste redskapet för att uppnå förändring. Många människor är inte medvetna om att deras beteende kan ha en negativ påverkan på omgivningen och i slutändan även slå tillbaka på dem själva.

Vi har valt att inte upprätta en budget inom detta projekt. Vi är dock medvetna om att förslaget är kostsamt och behöver

stöd från externa investerare. För att sprida ut kostnaderna kan man bygga parken i olika etapper. Att underhålla parken är en annan svårighet. Ett sätt att finansiera underhållet är ta ut dagliga avgifter från försäljarna och parkeringen. Skötsel och underhåll är något man bör lägga stor vikt vid om parken ska fungera i verkligheten.

Att göra ett projekt i ett utvecklingsland har varit en lärorik erfarenhet som vi vill uppmuntra andra studenter till. Det har dock inneburit många utmaningar och krävt ett stort engagemang, ett flexibelt och innovativt tankesätt. Tack vare ett välkomnande bemötande och hjälpsamma människor lyckades vi lösa vår uppgift.

ABREVIATIONS

ARU – Ardhi University

DCC – Dar es Salaam City Council

EA – Environmental Act

EIA – Environmental Impact Assessment

KMC – Kinondoni Municipal Council

MFS – Minor Field Study

MNRT – Ministry of Natural Resources and Tourism

NEMC – National Environmental Management Council

NGO – Non-governmental Organisation

SIDA – Swedish International Development Cooperation Agency

SLU – Swedish University of Agricultural Sciences

SWM – Solid Waste Management

TIB – Tanzania Investment Bank

TZS – Tanzanian Shilling

USD - United States Dollar

1 TZS = 0.0045 Swedish crowns (XE, 5th of February 2015).

DEFINITONS AND TERMINOLOGY

Bajaji – three wheeled moped taxi

Beach – coastal environment used for recreation

Dala dala – privately owned mini buses used for public transportation within Tanzanian cities

Exotic plant species – plant species that has been introduced to a region where it does not naturally occur

Expatriate – a person who lives outside their native country (Oxford Dictionary 2015)

Green space – a defined area of grass, trees, or other vegetation

Informal settlement – settlement that has developed informally outside the city planning framework

Infrastructure - the underlying systems that build-up a functioning city for example transportation, public institutions, water and power lines.

Invasive plant species – plant species that naturally do not exist in a certain region

Native plant species – plant species that naturally exist in a certain region

Open area – unexploited area

Public space – an area open and accessible for everyone where there are no obligations to pay a fee or buy anything

Urban – In, relating to, or characteristic of a town or city for example the urban population (Oxford Dictionary 2015)

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CHAPTER 1 : INTRODUCTION

Chapter one begins describing the incredibly fast urbanization that is currently taking place in The Sub Saharan countries, focusing on the situation of Dar es Salaam, Tanzania and how this has affected the city structure. Further it discusses the lack of open green areas in the dense urban city centre and why this loss has a detrimental effect on both the city and the people living there. In relation to this the thesis problem statement is discussed as the present conflict concerning public access and economic enterprises and tourism along the city coastline of Dar es Salaam. The chapter ends with an introduction to the project site, followed by the aim, research questions and limitations.

PREFACE

For our masters in landscape architecture we have developed a design proposal for the public area “Coco Beach” along the coast of Dar es Salaam. The desire to write our master thesis abroad started already in the fall of 2011 after a series of inspiring lectures regarding city planning in developing countries. We wanted to investigate an urban context unlike our own and the concept of public space in this setting. In the fall of 2013 we were awarded a grant of a Minor Field Study (MFS) funded by the Swedish International Development Cooperation Agency (SIDA), to spend nine weeks in Dar es Salaam to study our project site and to experience and gather as much understanding as possible for the culture and urban life there. This has truly been a life changing journey, it quickly became obvious to us that “Coco Beach” is more than just a beach it is a vital part of the city acting more like a city park. It is never completely empty and all types of activities can be encountered there. However at present “Coco Beach” is threatened by privatization rumours and the beach paradise is being overshadowed by the various environmental issues, causing harm to the visitors and the surroundings. Action need to be taken in order to safeguard the future health and existence of the area, so it can remain a loved public space in the dense urban context of Dar es Salaam.

PROJECT BACKGROUND

Since the beginning of the new millennium the world's population has increased exponentially fast and today more people around the world are living in cities than on the countryside, a trend that is expected to continue. Furthermore the majority of this trend is taking place in what we refer to as the developing world. In fact it is predicted that 95 percent of the future global population will be accounted for in the urban centres of the developing world (Davis 2007, pp. 1-2).

By global standards the developing region of Africa has until recently displayed modest levels of urbanisation and is currently the least urbanized region in the world (McMichael 2000). Nevertheless this is changing rapidly. Sub Saharan Africa has during the last decade become the world's fastest urbanizing region with an annual growth rate of almost 5 percent. This is twice as high as both Latin America and Asia (UNICEF 2012, p. 4). By the year of 2040 it is predicted that

the number of urban dwellers will be five times that of 2010 (UN-HABITAT 2014, p. 13). This change is concentrated to a few metropolitan areas one of them being Dar es Salaam, the largest city of Tanzania (UNICEF 2012, p. 4). Since the 1960s Dar es Salaam has grown from being a relatively small coastal city of approximately 300 000 people to become a bustling urban centre of four million inhabitants (UN-HABITAT 2010 p. 17, UNISDR 2012, p. 14). This development has had a major impact on the city structure, which in turn has affected people's welfare and the surrounding environment. Hence the fact that the city has grown at such a fast rate under such a short time span has resulted in inability of the city government to provide adequate housing and infrastructural services to compensate for this (The World Bank 2012, p. 187). The consequence is that people have taken their living situation into their own hands, over 80 % of the urban population are living in informal settlements. These areas have risen haphazardly between the formal areas and at the periphery of the city.

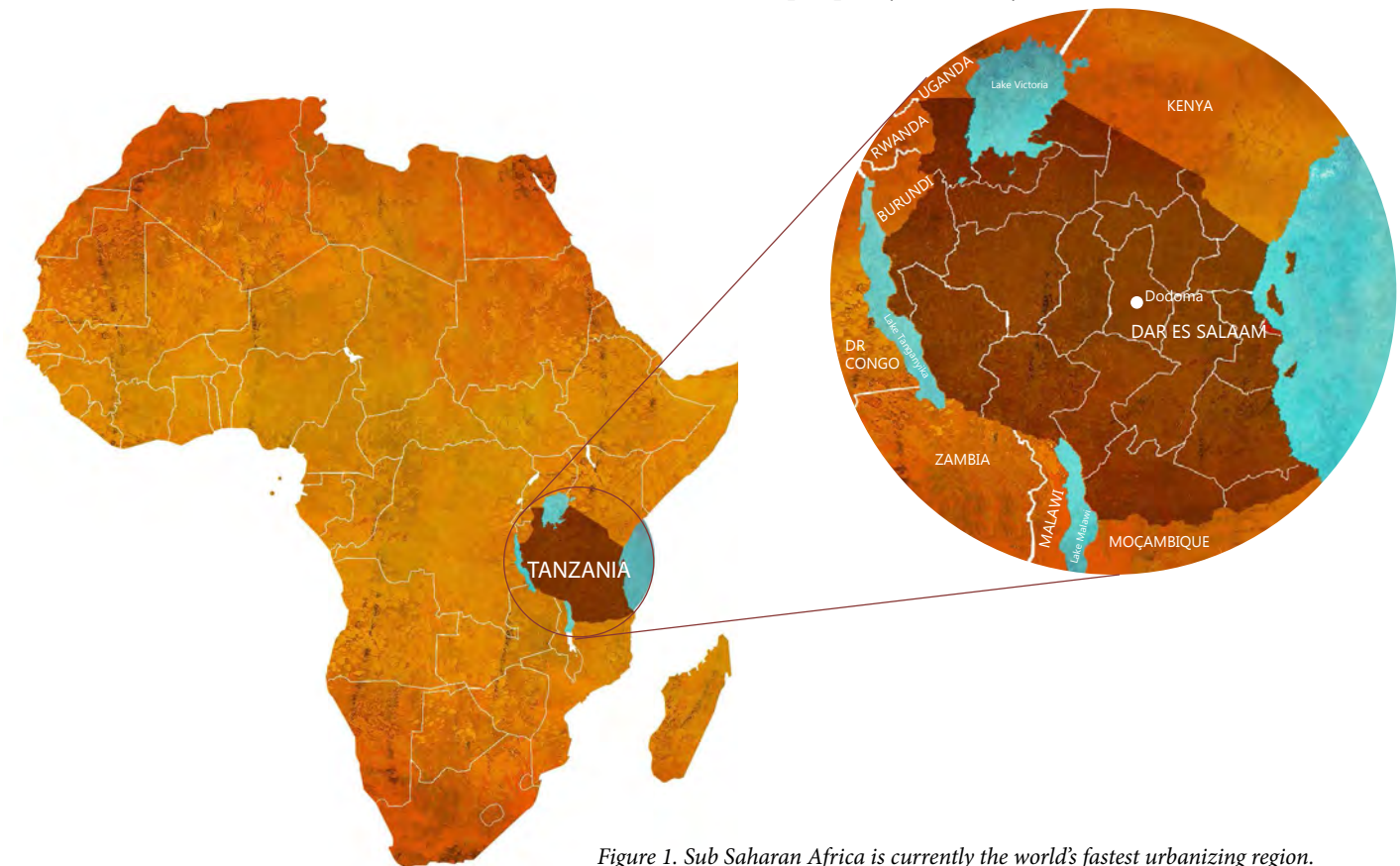


Figure 1. Sub Saharan Africa is currently the world's fastest urbanizing region.

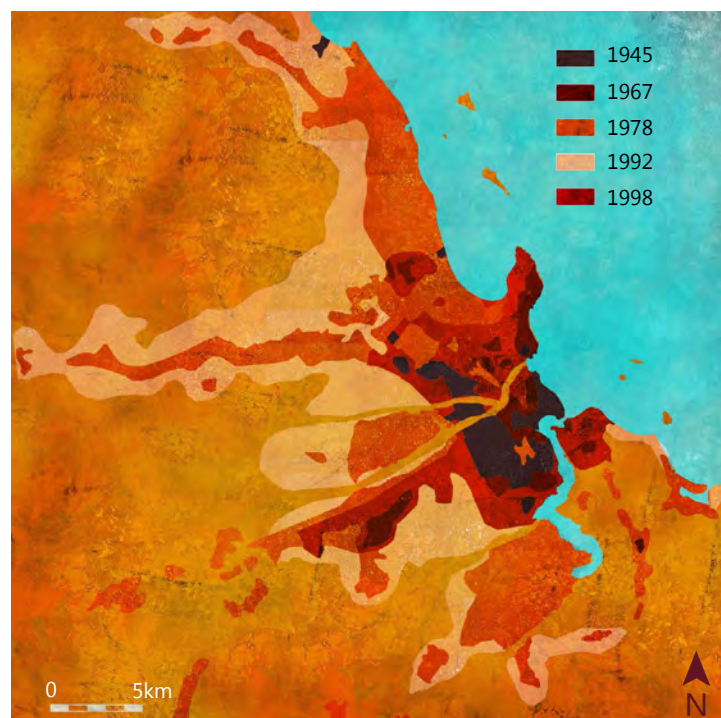


Figure 2. Dar es Salaam urban growth 1945-1998 (map based on Brennan & Burton & Lawi 2007, p. 60).

The informal settlements generally lack basic services such as access roads, safe water, absence of social amenities and as a result also poor sanitation due to use of pit latrines and no possibility for solid waste removal (UN-HABITAT 2010, p. 17). Furthermore half of the inhabitants survive on roughly one United States Dollar (USD) per day which indicates the existent poverty (The World Bank 2012, p. 181).

Dar es Salaam lies within the coastal forest belt of Eastern Africa and has therefore historically been very green (Burgess & Muir 1994, p. 10). When the Arabs started to colonize the area in the 1860s they envisioned a town economically driven by plantation agriculture and the forests started to gradually disappear (Brennan & Burton & Lawi 2007, p. 16). The loss of vegetation has continued as Dar es Salaam has expanded and the last decade's rate of urbanization has now resulted in a detrimental loss of urban vegetation and open areas in the city. Moreover, the remaining vegetation has also become to be dominated by exotic, non-native plant species (Mng'ongo, 2004, p. 36). This process is occurring on all levels of development. The informal settlements take over the

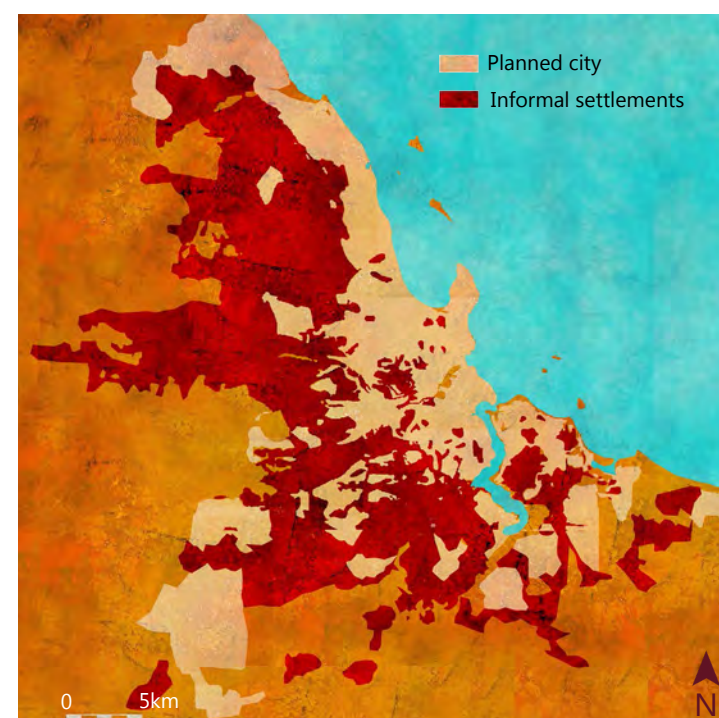


Figure 3. Dar es Salaam spread of planned and unplanned city (map based on UN-HABITAT 2010, p. 20).

marginal lands reserved for parkland and in the city the need for space coupled with possibilities of economic enterprises is gradually taking over the few open and undeveloped areas that still exist (Mng'ongo 2004, p. 6). Moll et al. (1983 see Mng'ongo 2004, p. 6) argue that many cities in developing countries are planned from a strict engineering perspective. Thus importance of urban vegetation in regards to retaining healthy ecosystems, supporting biodiversity and promoting human health is not recognized. Furthermore the fact that urban vegetation also acts as a vital infrastructural element in order to deal with for example storm water or prevention against erosion, is not utilized. Instead buildings, roads and other services are considered more important (Moll et al. 1983 see Mng'ongo 2004 p. 6). Dar es Salaam follows this pattern, in fact the city is currently in the process of implementing a new master plan that is still very focused towards infrastructural elements, zoning strategies and satellite cities as a solution (Ministry of Lands 2013). Consequently we believe that Dar es Salaam is not only becoming denser but also more disconnected from the human scale as the traffic increases and additional high-rise buildings are being built.

Gehl (2010, pp. 217-219) debates that in these dense urban centers the environment becomes extremely important. One reason being that when possible many ordinary activities are performed outside due to lack of indoor space in informal settlements. Furthermore, the culture and climate also dictates a very multifaceted outdoor life. Hence in the absence of formal public spaces the neighbouring streets and leftover common grounds in the city are frequently used in innovative ways to compensate for this (Gehl 2010, pp. 217-219). Kombe (2005) argues that master plans are no longer potent instruments for promoting planned land use development in these new types of cities where the majority of growth has spread informally. In conclusion this evolution has created a new type of city, a complex mosaic of formal and informal, catalysing new problems and challenges for the city planners, in need of new and innovative ways to target the future planning of the city and to deal with the issues that are present. With this thesis we want to explore how investing in a larger public area can benefit not only the urban dwellers but also the city as a whole. Additionally to use the bustling life and culture that exists on the streets of Dar es Salaam as a resource to merge the ever disconnecting city together. The project is focused on the coastline of Dar es Salaam, one of the a few larger green open areas still accesible and connected to the dense city.



People sitting along Kivukoni Rd. In the absence of formal public spaces the streets are used in innovative ways to compensate for this Photo: © Linn Nilsson



Informal settlement close to the Msimbazi river. Photo: © Amanda Larsson

THE COAST OF DAR ES SALAAM

Tanzania's extensive coastline is one of the most important areas in terms of economic opportunity and cultural resources. The coastal region contributes to one third of the national gross domestic product and currently 75 percent of the country's industries are located along the coast (MNRT 2003). This becomes very evident in Dar es Salaam which is Tanzania's largest coastal city, home to the main harbour and also functions as the country's central economic hub (UNIS-DR 2012, p. 14). Consequently this has also put vast pressure on the city coastline. The coastline is today part of the larger green spaces in the city still left largely untouched. However this is rapidly changing. The existing pressure of urban expansion in combination with the attractive location for economic enterprises such as hotels, shopping centres and privatized beaches is contributing to an increasingly fragmented coast limiting the public accessibility. This development has affected the majority of city inhabitants that do not live by the shore. The beaches have become an intricate part of the city culture. A great number of people use the coast as a place for recreation, to benefit from the fresh breeze and get away from the urban heat or to enjoy the view and to socialize etc. Various people also depend on conducting business along the beaches as their livelihood. During the weekends and public holidays the beaches are filled with visitors. Hence a conflict exists among the different stakeholders regarding how to utilize the coast.

Apart from being an attractive site for hotels and human recreation the Tanzanian coast holds an incredibly range of ecosystems (Masalu 2000). These natural resources are extremely sensitive and overutilization may lead to unrecoverable damage. Environmentally sensitive areas include among others, mangrove forests, wetlands, river mouth and flood plains steep slopes and areas prone to beach erosion. Because of this there are various aspects that need to be considered when planning any type of development along the coast (MNRT 2003). To guide the development along the city coastline the government has instated several regulations.

In recent years the Ministry of Natural Resources and Tourism (MNRT) have intentions to expand the coastal tourism in order to take some pressure of the country's Northern

wildlife parks. Dar es Salaam is considered to have potential to expand on the larger scale establishments since a lot of basic infrastructure already exists. The ministry is aware of the preference for beachfronts locations, nevertheless they do not consider this to be a problem as long as steps are taken to ensure that the other uses and users of the beachfront and sensitive coastal resources are taken into consideration. MNRT (2003) argues that planners should aim to ensure that the coast does not become one long line of fenced off beach resorts. However in reality these recommendations are not always followed.

Referring to one of the main regulations, the Town and Country Planning (public beaches planning area), established in 1992, MNRT stress the importance of setbacks and buffer zones to avoid resource user conflict and potentially hazardous areas.

In this act it is stated:

"Where the planning scheme is prepared for a planning area which fronts the ocean, a strip of land of a width of not less than 60 meters from the high-water mark shall be reserved exclusively for conservation and for strictly water-related human activities."

(Government of Tanzania 1992)

The act further states that one of the main objectives is to protect the environment against pollution and degradation, to avoid privatization hence to allow access and maintain the enjoyment for the general public. However when defining water-related human activities, tourism and luxury beach hotels are included (Government of Tanzania 1992). This can be regarded as incredibly contradictory since hotel development is a form of privatization. Additionally big hotels and shopping malls have at various locations established along the whole coastal width, making it impossible for the general public to pass or enjoy these areas in an unrestricted way. Residential areas are also spreading along the shores, not completely cutting off the coast nonetheless decreasing the possible access points. Another consequence of this change is



Private residency along the Mbezi beach area.



Group of people walking along the coast passing a hotel development.



Kawe public beach. Piles of litter is a common sight.

that the leftover spaces are not maintained and have become heavily polluted, something that the act was also established in order to prevent.

Hence these regulations are in many ways conflicting in what they wish to obtain and what the laws actually allow. This leaves a lot of room for interpretations and vagueness in proper implementation. Another aspect that may contribute to these actions discussed by Masalu (2000) is the fact that in general Tanzanians portray an ignorance or are not educated about the linkages of coastal ecosystems as natural resources.

The coastline of the Msasani Peninsula is one of the more exploited stretches in the city. On the peninsula some of the larger tourist establishments are located, including the private Dar es Salaam Yacht Club and numerous luxurious residencies. Intriguingly though it is also in this area that Dar es Salaams most popular public beach “Coco Beach” is located. Coco Beach is situated in the district Oysterbay on the peninsula. It consists of a 2 kilometre long coastal stretch of sandy beach and cliffs, visited by several hundred perhaps thousands of people each week. Regardless of its popularity Coco Beach is poorly maintained and there is a lack of facilities for the beach visitors. Furthermore in recent years there have been rumours concerning privatization plans of this area, causing a lot of protest from the public.

This caught our interest, how could one of the most popular beaches in regards to public recreation be a potential site for private activities? In this thesis we propose a design for the



Dar es Salaams most popular public beach “Coco Beach”.

public area Coco Beach, with the objective to keep the area public.

Following are three main arguments why we believe Coco Beach is a good area for the city authorities of Dar es Salaam to invest in as a public resource.

- Firstly it is already an incredibly well known and popular destination for recreation and perhaps the closest to a public city park that Dar es Salaam has at present. Furthermore the area has in recent years been involved in a lot of controversy by rumors of privatization plans from the Kinondoni Municipality Council (KMC). This stresses the fact that it is an important and pressing topic that people care about. Moreover, KMC is currently in the process of developing new plans for the area.
- Despite postcolonial attempts to integrate the city, Dar es Salaam still remains racially segregated in terms of where people live and carry out their daily activities. Coco Beach is located on Oysterbay, one of the city's oldest designated European neighborhoods. Nowadays this area is open for everyone. Nevertheless it is still populated by a majority of expatriates, including businesses and hotels aimed at a group of people with higher socioeconomic status than the average Dar es Salaam citizen (Smiley 2013). However the main visitors to Coco Beach do not belong to this group, hence they are not residents in the area. This creates an interesting exception from an otherwise much divided city. Focusing effort to transform Coco Beach into a public city park may therefore bring Dar es Salaam one step closer to becoming a less segregated city by creating a space where all inhabitants feel comfortable.
- Finally we believe that if no design interventions are carried out, a continuing high usage may cause irreversible damage to the environment. This, in turn will limit the prospects of any type of future development.

AIM & RESEARCH QUESTIONS

With this project we want to strengthen and improve the qualities that make Coco Beach the popular destination for recreation that it is today. Additionally to create a resilient and holistic design that is both socially, environmentally and culturally anchored. Working towards reversing the trend of privatization along the city coast and it is our hope that the design will inspire to similar development elsewhere in Dar es Salaam city.

Our main research question is:

How can Coco Beach become a well-functioning public beach and act as a guideline for further development along Dar es Salaams coast?

In order to answer this question we also need to understand:

- How does Coco Beach connect to the city, both in terms of location and perception?
- What laws and planning regulations concern the coast?
- How is Coco Beach used and which stakeholders are involved in the area?
- What are the qualities and main problems concerning the area?
- What strategies are needed to keep the essence of Coco Beach, hence to keep it public and functioning for the future citizens of Dar es Salaam?

LIMITATIONS

In this thesis we focus on the formal sense of public space in terms of beach areas along the Dar es Salaam city coastline. This means that other public spaces such as, squares, markets, streets and parks are excluded. Our work is further limited by only investigating one public beach “Coco Beach” in relation to various privatized beach areas. Hence no comparisons have been made between different public beaches except to acquire a general overview of the public accessibility along the coast.

Due to the fact that this is an academic master thesis, the final design explained through illustrative plans, cross-sections and visualizations is presented on a conceptual level. We want to show the overall feeling of the future park, its functions and spatial activities. No construction drawings or budget plan has been proposed, therefore the project would have to go through continuing stages of projection prior to eventual realization.

TARGET GROUP

This thesis serves as encouragement towards the KMC, and other Tanzanian authorities concerning a more public approach regarding future development on Coco Beach and the continuing coastline. The project may also be of interest to the people living on the Msasani Peninsula, which at present are not the main users of the area. Furthermore with this thesis we want to emphasize the importance of landscape architecture in the dense urban context of Dar es Salaam city. Landscape architecture is a relatively new profession in Tanzania, the university degree was established only a few years ago. Therefore this thesis turns to inspire the existing workforce and students to continue expanding the profession and its importance in city planning.

We also want to inspire landscape architects around the world interested in engaging in similar projects in developing countries. Finally this thesis turns to SIDA that provided funding making the project possible.



CHAPTER 2 : METHODS

Chapter two describes the different methods used to perform the thesis research, analysis and how this lead up to the final design proposal. The main body of research is based on the case study methodology with Coco Beach as the investigated case. This chapter explains how this method has been beneficial for this project and in what way it was used. Finally the chapter discusses the various methods, their limitations and advantages that were encountered throughout our work process.

PROJECT OVERVIEW

This master thesis was carried out as a MFS during the period February 2014 to February 2015, through collaboration between The Swedish University of Agricultural Sciences (SLU) and ARU in Dar es Salaam, Tanzania. The MFS is a scholarship funded by SIDA. The intention of the scholarship is to give students a chance to expand their international knowledge and understanding by conducting field work for their final thesis in a developing country.

The thesis work can schematically be divided into 3 stages, described in figure 4. The first part consisted of preparations in Sweden, the second part of nine weeks of fieldwork in Tanzania and the final stage, compilation of the report back in Sweden. However, even if this describes our project in a linear progression, the work process has been ongoing throughout these stages, overlapping with many twist and turns along the way. Figure 5, is an illustration of how we perceive this. Initially there is a wide range of information, experiences and impressions. This is analysed from all kind of angles, back and forth to finally narrow down and concentrate into one final design.

CASE STUDY

When investigating any part of a city it is difficult to view it as a single unit independent of the rest of the urban structure. In this thesis we are investigating Dar es Salaam's coastline. More specifically looking at the public recreation area "Coco Beach" and how we as landscape architects through design can improve this area to make it better for the public and the city as a whole. Being unfamiliar with the culture, country and the fact that we were there for such a short period of time (nine weeks) it was important for us to not just apply a design of "the perfect beach" as we know it from our western point of reference. Conversely to try and understand the different local laws and regulations revolving the coast, the stakeholders concerned and how the site is connected to the city and its near surroundings, not only physically but also in regards to processes. To achieve this we applied the case study methodology.

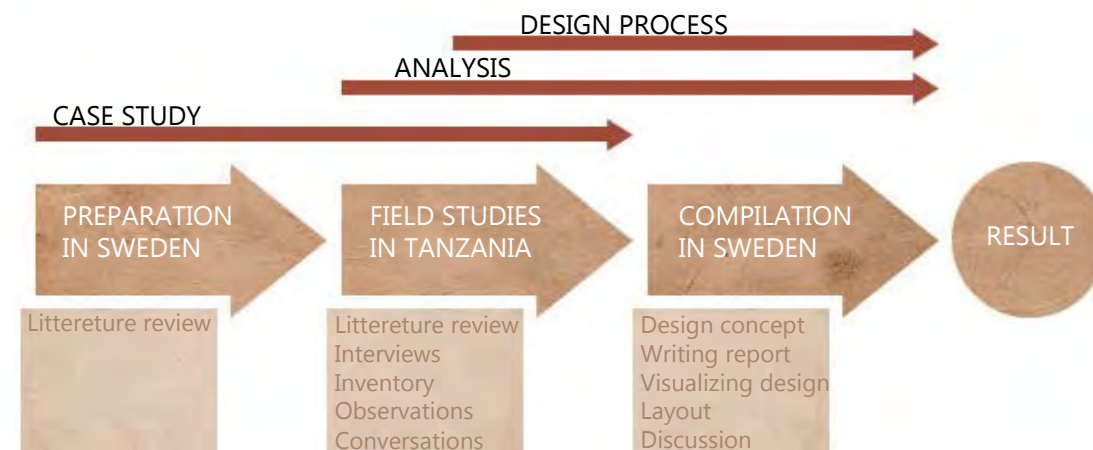


Figure 4. Schematic overview of the project.

Johansson (2003) explains that the case study methodology was developed within the social sciences to be able to capture the complexity of a single case. Today it is applied in a wide range of subjects including practice-oriented fields. Johansson further argues that one major feature of this method is triangulation. Triangulation is the combination of several methods that illuminates a case from different perspectives. This is done to ensure the validity of the research and may include both qualitative and quantitative data obtained from different levels of techniques, methods, strategies, or theories (Johansson 2003). For the purpose of this thesis the following methods have been used: literature review, site visits, semi structured interviews and conversations with users. These methods are described in the following paragraphs.

LITERATURE REVIEW

Two main literature reviews were carried out. The first literature search was done prior to arriving on site in Dar es Salaam. Never having spent any time in Tanzania or a country with similar situation we felt that we initially needed a broader search base than just our research question. The main body of literature is based on publications online including scientific articles, master thesis and dissertations. Literature was found through the SLU library database Primo, Libris and the scientific databases Science Direct and Google Scholar.

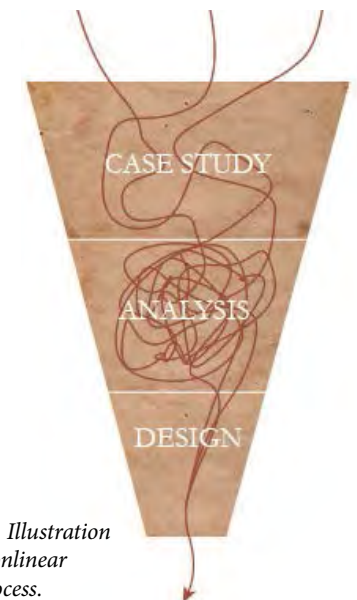


Figure 5. Illustration of the nonlinear work process.

Focus of the search can be divided into four main categories:

- Tanzania, culture and history.
- Dar es Salaam, culture and history through a planning/landscape architecture perspective, including infrastructural issues of today, traffic, waste/water treatment and green spaces/public space.
- The coastline resources, development and environmental issues.
- Reference projects from similar countries.

The second literature search was carried out in Dar es Salaam. There we focused on gathering more detailed information regarding the chosen study area including information that had been hard to get hold of while in Sweden. The documents and books were obtained from governmental agency web sites, through speaking with different professors at ARU and from the conducted interviews. The main body of literature consisted of municipal planning documents.

Focus of the search can be divided into three main categories:

- Rules and regulations.
- Site specific environmental issues. For example flooding and erosion.
- Local building material and vegetation

LOCATION OF STUDY AREA AND SITE VISITS

The main study site is located on the east side of the Msasani Peninsula. It consists of a coastal stretch approximately 2 kilometres long, known as Coco Beach. The study site was concluded after conducting a broad inventory of the Dar es Salaam city coastline. We had decided on investigating Coco Beach before arriving in Dar es Salaam based on conversations with Tanzanian exchange students and people familiar with the city. However while on location we wanted to make sure that this would be the best choice for our project. The inventory resulted in the decision to include some of the neighbouring land that is also used for recreational activities to give an idea of how this type of development can continue along the coast. Hence how the coast can become a recreational area connecting the whole city. The second reason for the inventory was to gain an understanding of how accessible the city coast is in terms of public recreation. For example, were private/public beaches, residential areas and business areas are located.

The inventory ranged from Kunduchi, approximately 12 kilometres north of the city centre, along the coast down to the city harbour Kivukoni. The stretch from Kunduchi down to Coco Beach we were guided in car by the teacher Mufada from ARU, stopping at certain places where it was possible to walk from the road to the coast. The rest of the coast we visited ourselves by bajaji.

Apart from the coast inventory we carried out 12 site visits. 8 of these were carried out on our main site. 5 times during the weekend afternoon-evening, 1 during the week midday-afternoon and 2 times during the week in the morning. 4 site

visits were made to privatized beach areas. It was important for us to understand the differences between the types of establishments that exist and whom and why people choose to go to these alternative beaches.

The Coco Beach site visits included three main modes of investigation, documented through field notes, photography and sketches.

- Inventory, of what exists in the area today in terms of materials, vegetation and plant species, businesses, permanent structures, facilities and parking areas.
- Observation, to document the different types of human activities taking place and to find out if there were any specific trends related to these.
- Casual conversation, with the help of students from ARU acting as translators we approached beach users to get a more direct idea of their opinions and feelings regarding the area (appendix 1).

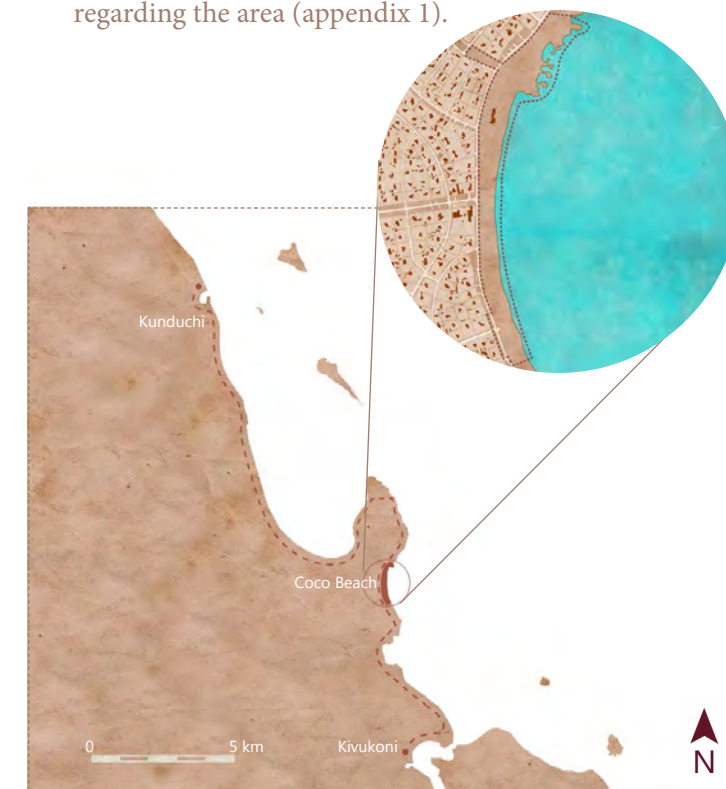


Figure 6. Map showing our study site and the range of our inventory.



Emelie talking to a beach visitor.

Students Emmanuel (left) and Alphonse (right), helped us to overcome the language barrier.

SEMI STRUCTURED INTERVIEWS

In Tanzania acquiring any type of information is still largely dependent on oral communication. Even though internet and wireless connections are spreading just like in the rest of the world we found that there were gaps in the range of information available online. Furthermore in many cases it was even very difficult to get a hold of soft copies concerning the investigated topic. Consequently we had to rely on meeting and interviewing people in person. The interviews served three main objectives:

- They were important to get an understanding of the administrative system when it comes to city planning and the structure on Coco Beach.
- They were important to obtain an idea of the different stakeholder's opinions, and how these different parties relate to each other.
- The interviews also made it possible for us to gain professional knowledge regarding the local design practice in terms of process, material, vegetation and environmental circumstances.

Semi- structured interviews were carried out for this purpose. This method varies from a normal interview with the fact that it is not based on a rigorous set of questions, instead the interview follows a general framework of the theme to be explored. However the structure is quite open and it is more similar to a conversation. Hence for example it is possible to make changes if new ideas are brought up during the interview (Kvale & Brinkmann, 2009, p.19).

Because of the sensitivity to certain investigated topics some of the people that we interviewed have been kept anonymous. Furthermore we would like to stress that the documented information is our interpretation of the answers and current situation regarding the project site and city.

Following is a list of the different people and agencies that we talked to and why. For more information regarding the different agencies see appendix 2.

GOVERNMENTAL AGENCIES
<i>Kinondoni Municipal Council</i> People interviewed : property appraiser and town planer. Objective: To find out who is responsible for maintenance of the Coco Beach area, the history of Coco Beach in terms of former developments/conflicts and future plans for the area.
<i>National Environmental Management Council</i> Person interviewed : Senior environmental manager officer. Objective: To find out more about environmental regulations, how these concern the coast and their significance in relation to other land policy regulations.
<i>Tanzanian Investment Bank</i> People interviewed: Director of strategic planning and corporate affairs and Manager at the business development.

Objective: TIB is currently involved in financing a design proposal for new development along the Coco Beach area. We wanted to know more about this proposal and what it will entail, hence when and if it will be built if the area will remain public etc.

NON GOVERNMENTAL AGENCIES

<i>Nipe Fagio</i> People interviewed: Anton Fouquet and Matthew Haden. Objective: To find out whom they are and what they do.
<i>Sea sense</i> Person interviewed: Timu Pastory. Objective: To get some information regarding the coastal wildlife and how their organization works. Furthermore to understand the major detrimental effects caused by human activity concerning the coastal environment.
<i>Tanzania Forest Conservation Group</i> Person interviewed: Andrew Perkin. Objective: To acquire information regarding the native vegetation. How the vegetation has been distributed historically and what plant species grow in Dar es Salaam now.
<i>Bremen Overseas Research and Developmental Association</i> Person interviewed: Zabron Mwaipopo. Objective: To understand technical solutions concerning decentralized wastewater and solid waste systems.
<i>WASTEdar</i> Person interviewed: Matthew Haden. Objective: To understand the waste management system in Dar es Salaam, the problems and information concerning waste in the Coco Beach area.

PRIVATE ACTORS

<i>Epitome Architects Limited</i> Person interviewed: Nuru Nyerere. Objective: To get an insight in how the architect profession works in The Country. Furthermore to obtain an opinion from them regarding the Coco Beach area and advice concerning what actions would be necessary /possible to perform when developing a design proposal.
<i>Design solutions</i> Person interviewed: Anita Urasa. Objective: To get an understanding of Landscape architecture in Dar es Salaam, information concerning material and advice related to Coco Beach.
<i>Hotel establishment</i> Person interviewed: Hotel manager. Objective: To get an understanding of how a private developer thinks concerning the coast and public areas.

ANALYSIS

The following methods were used to analyse the information gained from the case study.

GEHL ANALYSIS

Throughout our thesis work we have been guided by the ideas and analysis methods of Gehl Architects. Gehl Architects is an architect firm originating in Denmark during the mid-1960s beginning as a countermovement towards the big scale, car dominated modernistic society that at this time was taking form. Their approach is to develop cities by focusing on the human scale. They study how people interact with their urban environment and then create the city form based on people's uses and needs to improve the overall quality of life. In recent years they have also been involved in several projects in developing countries (Gehl Architects 2014). In this project this has taken form by focusing on the beach visitors experience and opinions. For example we have investigated, movement patterns, type of activities, when and where the different activities take place. In order to improve the human scale.

THE LYNCH METHOD

To get a structural understanding including the character of Coco Beach we used an analysis method inspired by the Kevin Lynch method. Kevin Lynch was an American architect and urban planner. In 1960 he published a method to analyze the urban structure based on how people perceive their city in terms of certain physical elements. The physical elements were divided into five different categories, paths, edges, districts, nodes and landmarks (Lynch 1960, p. 46). We have applied a modified version of these categories in relation to the smaller scale of Coco Beach. Moreover we have investigated them in relation to how we perceive the situation.

Paths: The various routes that people use.

Edges: Barriers that close one region from another. These could consist of a road, path, wall etc.

Districts: Areas that have an identifiable character that in some way differs from adjoining areas.

Nodes: Points of convergence where people meet and gather, also a place of connection before moving along to the next place.

Landmarks: A point of reference, usually a physical object that is externally recognizable. These could consist of a sign or a building.

SWOT ANALYSIS

The knowledge obtained from the case study was further analyzed through a SWOT analysis. The SWOT is an analysis method that breaks down the investigated material into internal and external factors that are either favorable or harmful in regard to the projects objective. This is done by categorizing the factors into strengths, weaknesses, opportunities and threats (Boverket 2006, p. 44). The SWOTs helped to determine the key points of information obtained from the case study that later acted as guidelines for the continuing design proposal. Several SWOTs were carried out targeting different perspectives. We investigated the opinions of the different stakeholders divided into governmental agencies, private investors and local vendors. Furthermore, we investigated the aspects of public versus private beaches and the physical beach environment. These SWOTs were summarized into a final SWOT including our own reflections and views regarding Coco Beach.

DESIGN PROCESS

It is important to point out that the design process has been an ongoing development throughout the thesis work. However it was not until we had arrived back in Sweden that the concept was formalized and our ideas started to finalize on paper.

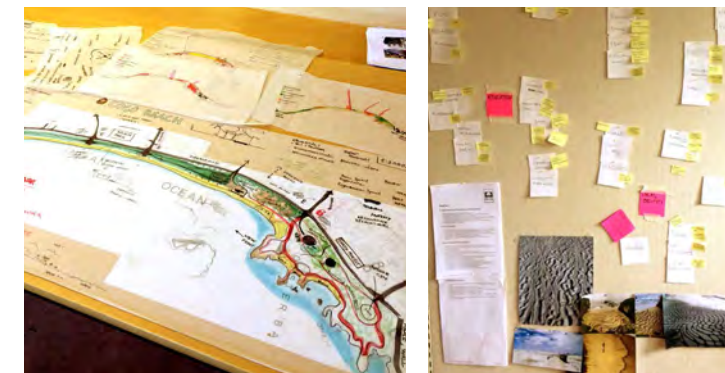
The key points gained from the structural and SWOT analyses were refined into a specific design strategy. Additional to these we also used the Blue Flag certification system (appendix 3) as a helpful checklist and source of inspiration

for creating a safe public beach. The Blue Flag Program is a voluntary eco-label that is owned and run by a non-governmental and non-profit organization called the Foundation for Environmental Education (FEE). Through strict criteria dealing with water quality, environmental education and management, safety and other services, Blue Flag is a way of working towards sustainable development of beaches and marinas all over the world. The concept was born in France in 1985. Today more than 4000 beaches and marinas in 48 countries are awarded the Blue Flag Certificate (Blue Flag 2014).

To not become hung up on technical aspects when solving site specific problems, we have also worked with a more expressional design concept in addition to the design strategy. This helped us create an aesthetically coherent design for the entire beach park.

DESIGN METHODS

The design process started with sketching in combination with group discussions and compiling of inspiration boards. Initially this was carried out with pen and paper, moreover as the ideas started to form the sketching continued with the help of digital tools such as Adobe Photoshop and AutoCAD. The final proposal including illustrative plans, cross-sections and visualizations were all made with digital techniques through the use of AutoCad, Adobe Photoshop, Illustrator and InDesign. Presentation expression and color scheme is a reflection of our feelings and associations that we experienced being on Coco Beach and travelling in Tanzania.



The design process started with sketching and inspiration boards.

DISCUSSION OF METHODS

Having to rely mainly on information concerning our topic explained through conversation, with little or no written sources, we found it quite difficult to structure our project before arriving on site in Dar es Salaam. Furthermore the fact that we had never experienced the country and culture, we did not know what to expect or what would be the best strategy to go about investigating this topic. Because of this while in Dar es Salaam we applied a strategy referred to as “The snowball effect” similar to a snowball in motion that gradually becomes bigger as it rolls down the hill. Hence as the project moves along information adds from several sources pointing to the same direction increasing and focusing the information relevance. This method has been both useful and at times counteractive, since it was not always as fast as one might wish. One of the major challenges for us was the differences between Tanzania and Sweden in how things are done. In all aspects the Tanzanian culture often takes on a certain “pole pole” (gradually or step by step) attitude, meaning that there is no need to rush things it will work out eventually. The significance of this could be that it was hard to get a hold of people, people were not always on time, and meetings might not happen or have been forgotten, which in turn required a lot of patience and calm from our side. However regardless of this we were always met with kindness and helpfulness. Although in our case we did not make contact with the most relevant people, KMC and TIB, concerning our project until the last week, which made it impossible to meet them more than once. Furthermore this may have led to information being misinterpreted.

CASE STUDY

Conducting a case study, hence using a combination of methods has been vital to get a broad understanding of our study site and topic. For example the lack of written literature could be compensated by meeting people, and being able to experience the site to confirm the information previously only explained to us has been invaluable.

When it comes to the site visits we have used a quite free observation method. We did conduct observations at different times of the day and the week, however this was not carried

out in accordance with a certain schedule or checklist and we did not visit the area during evening/night. It was not always possible for us to bring a student along to help us, we did not feel completely safe moving around the area by ourselves and additionally the occasions when we were alone it was hard to communicate with people. Furthermore this might have had an effect on how we perceived the area and the activities that we observed.

Being a foreigner often referred to as “Mzungo” (white man or woman) in Swahili it was obvious that we did not belong to the site and this made it impossible to just silently observe people. Initially this was quite hard to get accustomed to since we are not used to get so much attention, it was almost impossible to go anywhere in the city without interaction. Mostly this was a positive experience with greetings of curiosity, to who we were and what we were doing, however we also came across suspicion and unpleasant situations with people expecting something from us as westerners. Our observations also depended on us taking photographs which in Tanzanian culture can be quite sensitive, with time we developed a feeling for when it was ok and when it was not.

The language barrier was another challenge that we had to cope with. In Tanzania Swahili is the official spoken language and English is often not very well understood. When carrying out the interviews at the different governmental agencies this was not a problem. However when talking to the users on the beach we had to rely on students from ARU to act as our translators. Not being able to talk directly to people it is possible that information was lost in the translation process, either by the way the question was asked or that we did not get a word by word record of the answer.

ANALYSIS

The Coco Beach area is a very popular place but this also means that a lot of people have strong opinions regarding it and these opinions could also be very contradictive to each other. Because of this during our investigation it was initially hard to know in what direction to focus our thesis. For example if we should focus on the stand point of the municipality

in order to make a proposal that they would want to use. However not wanting to become influenced we tried to be as neutral as possible throughout the investigation process. Furthermore it soon became very clear to us that in terms of our design we wanted to focus on the stand point of the beach visitors. The SWOT's were for us a useful and effective method to work through all the gathered material.

DESIGN PROCESS

Everything we experienced in Dar es Salaam, from our daily life routines, walking around in our neighbourhood (Sinza Mori), travelling with the public transportation, and interacting with people along the way, has in some way affected our final design. This design process has not always been easy to get a grip of or to explain and it has been a constant process throughout or work trying to define what it is we wanted to achieve. One of the main reasons for this is the many external factors that affect Coco Beach, factors that originate in other parts of the city. This made it hard to know on what level to take the design. Hence how much to include and what level of detail to aim for in order to make it coherent and logical but at the same time address these issues on a broader scale? To do this we have created a detailed design in terms of aesthetics and function and technical solutions are done on a principal level.



CHAPTER 3: CONTEXTUAL BACKGROUND

This chapter begins with a brief introduction to Tanzania, including basic facts about the country structure, history, resources and climate. Following is an introduction to Dar es Salaam and the city's development through the different colonial eras. This planning history provides a background for the contemporary structure of Dar es Salaam. The chapter also describes Dar es Salaam's administrative structure and some of the main issues that the city is facing concerning waste and water management, traffic, gated dwellings and loss of green structure.

THE UNITED REPUBLIC OF TANZANIA

United Republic of Tanzania since 1964

Capital city: *Dodoma*

Largest city: *Dar es Salaam*

Population: *50,6 million inhabitants in 2014*

Land area: *945 000 km², bordering 8 other countries (see fig 1.)*

National language: *Kiswahili, however English is widely used in official communication.*

Currency: *Tanzanian shilling (TZS).*

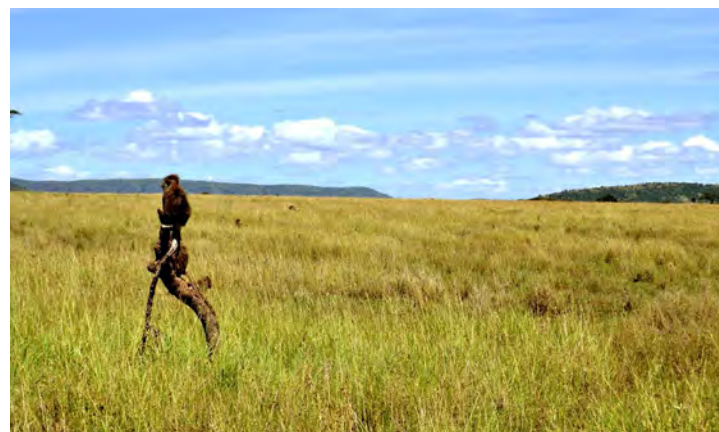
GDP per capita: *695 USD in 2013.*

Economic sectors: *The main sector is agriculture. Other sectors include tourism, fishing, forestry, mining, manufacturing and energy industries.*

Religion: *Christians (majority of Roman Catholics), Muslims (most Zanzibar's are Muslim) and followers of indigenous religions.*

Total life expectancy: *61 years in 2013.*

(NE 2014)



The amazing landscape of the Serengeti National Park.

Tanzania is located on the east coast of Africa just south of the equator in the Sub-Saharan Africa. The country consists of a fairly narrow coastal plain facing the Indian Ocean and an inland plateau in the east and a mountain area in the north (NE 2014).

During a period of 70 years Tanzania was colonized and controlled by Europeans, the mainland Tanganyika became independent in 1961 and subsequently also the self-governed Zanzibar in 1964. The same year Tanganyika also entered unification with Zanzibar and formed the United Republic Tanzania which today is the home to 50,6 million inhabitants originating in more than 120 ethnic groups (NE 2014). Tanzania is well known for its spectacular national parks and game reserves characterised by vast plains and plateaus. It is the home to Mount Kilimanjaro and parts of Lake Victoria. Moreover the Tanzanian wildlife has been designated as the most diverse in Africa with approximately 300 mammalian species including the famous big five and a variety of marine species (NE 2014).

Tanzania also contains a spectacular coastline that stretches 800 kilometres in a north-south direction. The coast is included in the Western Indian Ocean marine eco-region renowned for representing magnificent examples of high marine and coastal biodiversity (ICUN 2000). Hence a wide range of ecosystems can be found there. Mangrove forests and coral reefs are the most common ones. However sandy beaches, dunes, rocky outcrops, estuaries, sea-grass beds, and coastal forests are also represented (Masalu 2000). Furthermore the coast also accommodates a remarkably high diversity of marine species such as whales, dolphins, marine turtles, numerous seabirds and the important remnant population of the threatened dugong (ICUN 2000).

COASTAL CLIMATE

With the exception of the cold harsh climate in the mountain regions, Tanzania is characterized by tropical and sunny weather with an average of seven to ten sun hours per day. The year is divided into dry and rainy seasons and terms like winter and summer has little meaning in respect of temperature. The coastal climate tends to be rather oppressive with

higher temperatures, especially at night, and a high humidity. Hence, the climate in Dar es Salaam stays relatively hot and humid all year around in comparison to inland cities. However due to regular sea breezes the climate is not persistently hot (BBC 2012). The average temperature lies around 26°C but can rise to 35°C during the hottest period which is from March to May. From May to October, the dry season sets in and temperatures stay cooler (BBC 2012). There are two rain seasons per year. In Dar es Salaam the heaviest occurs between mid-March to May and the shorter occurs in November to mid-January. The coastal regions tend to have more reliable and heavier rainfalls than the inland. Rainfalls can happen during any month but the heaviest ones occur during the rainy seasons (BBC 2012).

THE HISTORY OF DAR ES SALAAM

Since its inception Dar es Salaam was planned and controlled by foreign rulers for approximately 53 years. This laid the foundation for the contemporary city and in many ways also created a situation that is not adapted to the city's real needs. Following is a historical summary through the various colonial eras until present-day Dar es Salaam.

THE ARAB ERA

Dar es Salaam was first envisioned by the Sultan Majid of Zanzibar in the 1860s. At the time there was only a small fishing village called Mzima located there. The sultan saw the potential of the large natural harbour as a future trading hub and also envisioned the city as a refuge away from the increasing harsh political climate on Zanzibar. The name Dar es Salaam is most likely constructed from the Arabic phrase Bandar-as-salâm in English Harbour of Peace, further reflecting the area's most prominent attribute, the coast. Majid wanted to build a city economically driven by plantation agriculture and long distant caravan trade, thus encouraging Arab and Indian traders to relocate their business to this new centre in order to develop coconut plantations and trading houses (Brennan & Burton & Lawi 2007, p. 16). After Majid's death in 1870 Dar es Salaam fell into a sad decline. A devastating hurricane hit the area and damaged the invaluable harbour and consequently the sultan's palace was never

completed. Furthermore an outbreak of smallpox along with droughts and famine put Dar es Salaam in exigency. However, this was not the end rather the beginning of a period of subsequent rulers believing in Dar es Salaams unrealized potential as a commercial centre (Brennan & Burton & Lawi 2007, pp. 18-19).

THE GERMAN ERA

In 1890 Dar es Salaam fell under the German rule and subsequently the city was designated as the new national capital instead of the previous city Bagamoyo. This shift can be considered the real starting point for the rapid urban growth, a period characterized by development of infrastructure (Halla 1997 see Mng'ong'o 2004, p. 38). During this period a militaristic and segregationist approach to planning was adopted with little or no regards for local needs (Mng'ong'o 2004, pp. 38-39). This included implementing of a building ordinance dividing Dar es Salaam into three zones (figure 7). The German government seized eastern portions of the city from Africans and expelled them further west. The first zone consisted of a central district for administrative and residential buildings and only buildings of European style were allowed to be built. Zone two was occupied by Asians and allowed for more mixed constructions but the buildings should still be built of sturdy material. Zone three, the outermost zone consisted of African villages and allowed native style buildings. The German colonial rule was ended by World War I when Tanganyika fell under the rule of Great Britain (Smiley 2009).

THE BRITISH ERA

Great Britain entered their colonial rule by guaranteeing freedom, promoting welfare and social progress for all residents of Dar es Salaam. However this was a promise they did not entirely keep. In 1923 the British government enacted the German building ordinance, a decision that indirectly led to another forty years of continued and expanding segregation. The British conducted a policy that kept Europeans, Asian and Africans physically and socially separated thus Dar es Salaam remained as a city of three "colours". Even though Africans comprised the majority of Dar es Salaam's population, they were often the ones being neglected while the European minority became the privileged (Smiley 2009).

THE INDEPENDANCE AND UJAMAA POLITICS

In the middle of the 19th century things started to change for the native Tanzanians especially when Julius Nyerere funded the Tanganyika National Union (TANU) in 1954. TANU won the election in 1961 and Nyerere became the first African prime minister in history which eventually led to independence in 1961. Nyerere conducted a policy based on nationalistic and socialistic principles in order to unify the various nationalities and ethnic groups of the country (NE 2014). Nyerere also implemented a collectivization of the country's agriculture system called Ujamaa or familyhood (NE 2014). Thanks to the the politics of Nyerere Tanzania has remained politically stable without any civil wars throughout the years, however it also put Tanzania in a destructive economic crisis during the 1980's. In 1985 when Nyerere left his post Tanzania had become one of the poorest and least developed countries in the world dependent on external funding. Since then Tanzania has had various prime ministers and are today a growing multiparty democracy with Chama Cha Mapinduzi or Party of Revolution which has been the dominant ruling party since 1995 (NE 2014).

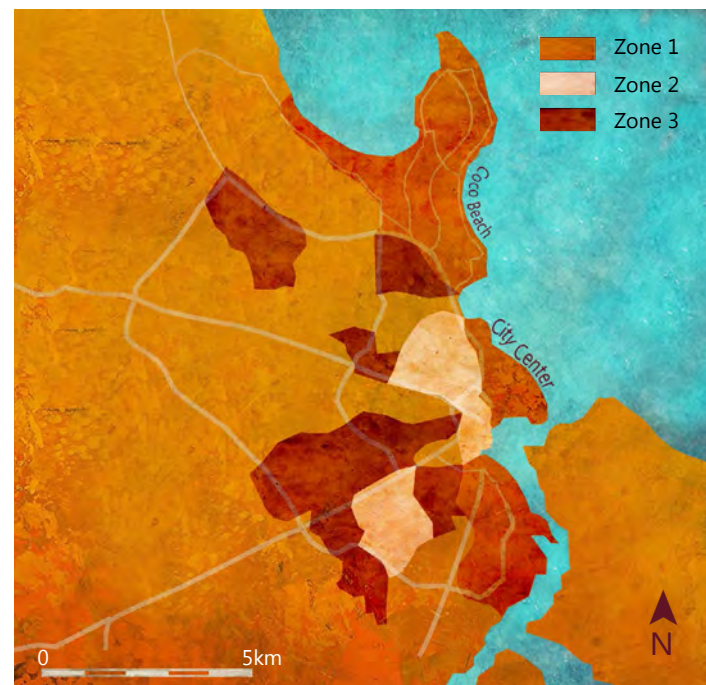


Figure 7. Map showing the building ordinance implemented during the German era, separating Dar es Salaam into 3 zones (map based on Smiley 2013).

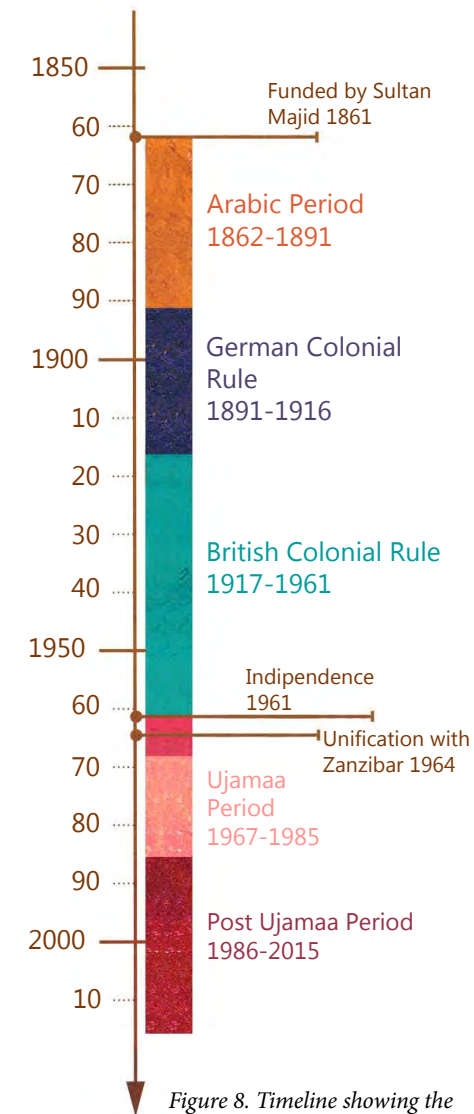


Figure 8. Timeline showing the history of Dar es Salaam.

CONTEMPORARY DAR ES SALAAM

Dar es Salaam has an administrative structure comprised of four local government authorities (figure 10). These consist of the Dar es Salaam City Council (DCC) and the three municipal councils, Illala, Kinondoni and Temeke (UN-HABITAT 2010, p. 48). The DCC coordinates the activities of the city's three municipalities. Moreover DCC attends to concerns including roads and transportation, SWM, water and sanitation, education, health services, planning on a city scale. These concerns are further specified at the level of the municipalities providing services and strategic planning on a local scale (DCC 2013).

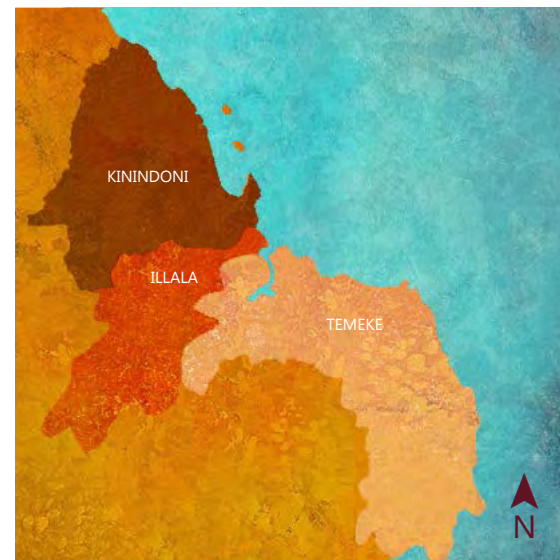


Figure 9. The 3 municipalities of Dar es Salaam.

The municipal council areas are divided into smaller administrative units of wards and sub-wards (Mtaa). The wards are aimed at enhancing the efficiency and coordination between the different administrative levels. They are in charge of receiving and implementing the various decisions decided in the council, furthermore to suggest development plans for their area to the municipality. The ward is also responsible to coordinate the property tax collection (UN-HABITAT 2010, pp. 48-49).

The sub-ward (Mtaa) is the lowest administrative level. This consists of a committee comprised of six members elected from the community residents. Their function is to implement decisions from the municipality, advice the municipal-

ity regarding area development, also to keep record of their residents and take care of revenue collection for remittance to the municipal council. It is also at this level that any form of community participation is carried out (UN-HABITAT 2010, pp. 48-49).

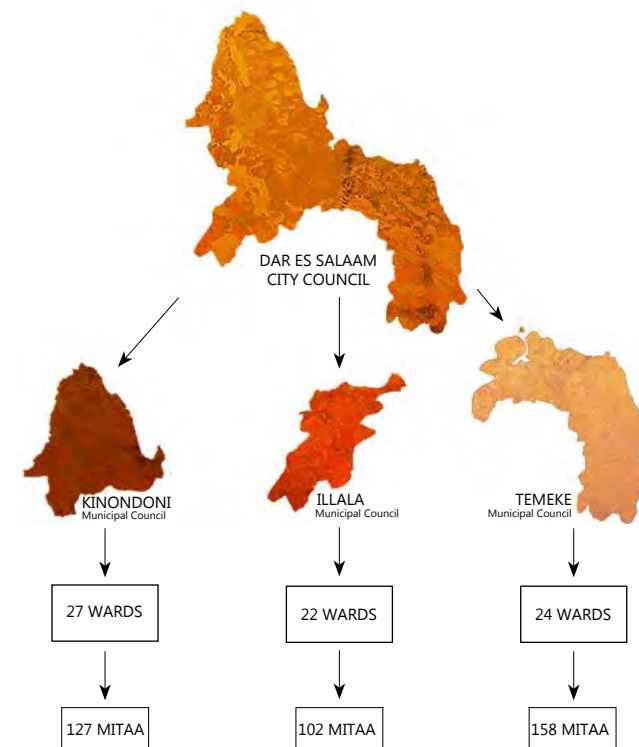


Figure 10. Illustration of Dar es Salaams administrative structure (map based on UN-HABITAT 2010, p. 48).

THE COMPLEXITY OF PLANNING A RAPID GROWING CITY

The history of Dar es Salaam in combination with the fast urban growth has created an extremely complex city structure. The government has been unable to compensate for this development which consequently has resulted in various issues that the city is now facing (The World Bank 2012, p. 187). The next paragraphs discuss what we believe to be some of the main concerns of the city today. These issues not only affect the city framework but also have a huge impact on the city health and are inevitably shaping a negative image of contemporary Dar es Salaam.



View over the Dar es Salaam harbour from the Kigamboni ferry.

LACK OF SOLID WASTE MANAGEMENT

One of the most visible environmental impacts that Dar es Salaam is facing today is how to deal with the solid waste management (SWM). In 2011 Dar es Salaam local authorities estimated that approximately 4,200 tonnes of solid waste was generated in the city each day (Breeze 2012). Furthermore it was estimated that less than 40 percent of this was collected and disposed at the city's only existing dump site in Pugu, or in other ways recovered. Hence the remaining wastes are illegally dumped along roads or in the rivers and drainage canals. This not only poses a threat to the local residents' health, additionally it contributes to annual flooding events and generation of green house gasses (Breeze 2012).

According to a report written by the World Bank regarding SWM in 2012 (Breeze 2012), a majority of the waste quantities not collected are from the unplanned areas of the city. Most of these areas lack proper roads and the collection vehicles can therefore not reach them. Another factor is the lack of local awareness, institutional capacity and lack of resources. Instead many of these households collect their waste in a ditch in their yard or at a local community collection site, where it is later burned. The three municipalities are responsible for the collection and transportation of their local waste to the city dump site. This includes the financing and fee collection as well as recycling and composting. Within each

municipality this responsibility is regularly assigned to the different wards. In practice it is also the wards not the municipality that enter into contracts with private sector service providers to collect and transport the waste. Furthermore the execution of these services can vary a lot since they are based on the neighbourhood's preferences and past experiences instead of a set framework (Breeze 2012).

Apart from the governmental agencies there are several non-governmental organizations that are dedicated towards the cause of SWM in Dar es Salaam. They work towards trying to come up with new solutions to deal with the problematic situation as well as pushing for the existing legislation to be followed. During our investigation we were able to talk with Anton Fouquet and Matthew Haden both involved with the organization Nipe Fagio. Nipe Fagio organizes events such as public cleanup days at the city beaches (Nipe Fagio 2014). Matthew Haden also runs the company WASTedar, a non-profit organization that has specialized towards waste management and recycling in Dar es Salaam (WASTedar 2014a).

Fouquet¹ and Haden² confirm the information stated in the World Bank report. Furthermore they explain that because the city dump site in Pugu is located outside of town with daily traffic jams it can take several hours for a return trip. Some of the private sector companies hired to collect and transport the waste find this too much of a hassle and choose to illegally dump the waste in the rivers instead. Dar es Salaam also has a problem with illegal dumping and handling of hazardous waste from industries and hospitals (Mato & Kaseva 1999). Walking along the beaches you commonly see artefacts such as syringes and razorblades and just recently there was a big scandal with the International Medical and Technological University in the city. They had illegally sorted medical hazardous waste including human organs and body parts into black plastic bags, dumping the waste in a public area in Mbweni Mpiji, Kinondoni district. They were left there for 48h contaminating the area and nearby water source (WASTedar 2014b).



Figure 11. Map showing distance from city centre to the city dumpsite.



Dumped waste is a common sight along the roads and beaches.



Dumped waste along the Msimbaze River. Photo: © Amanda Larsson



Photo: © Nipe Fagio

Nipe fagio organises clean-up events on the public beaches. Photo: © Nipe Fagio

INADEQUATE WATER MANAGEMENT

Another infrastructural issue in Dar es Salaam is the lack of a functioning water delivering system and sewage systems. The water delivering system has not been upgraded since the colonial era, when it was constructed and it has now become unable to handle today's demand (Mwakalila 2007, Kyessi 2005). Only 30 percent of the population has access to tapped water and the system produces only 204 million liters per day compared to the demand of 410 million liters. Further there is a 60 percent loss along the transportation route resulting in merely 40 percent reaching the consumers (Kyessi 2005). The discontent has resulted in individuals

starting up informal water businesses and this water is often collected from unsafe sources such as streams and natural wells even though the vendors claim it to be reliable. Other concerns that make the system even more inefficient is that individuals illegally connect to the system or manipulate the pipes to gain more reliable water (Mwakalila 2007). Dar es Salaam's sewage system is also of an incredible low condition. Not more than 15 percent of the city's residents are connected to the sewer network and only 4 of the city's 8 oxidation ponds are in use. Because of this, large quantities of polluted water and solid waste are constantly discharged untreated into the ocean via local sewer networks and rivers. As a result the coastal waters of Dar es Salaam are heavily polluted. Furthermore 80 percent of the households in Dar es Salaam are using pit latrines and septic tanks which frequently overflow thus contaminating water sources and increasing health risks. The current situation regarding sewage treatment is beneath contempt causing disastrous consequences on both human health and the coastal wildlife.

Another factor that concerns the lack of a functioning sewer system is handling of storm water. This is extremely important since the rapid urban development is increasing the run-off during heavy rainfall. Thus, causing more frequent and severe flooding events due to the reduced surface area that is able to infiltrate the water (DCC 2010, p. 14). The municipalities have a total of 825 kilometres of storm water drainage network. However only about 50 percent of these are in good condition and it is limited to the city centre and old areas of the city. In the community neighbourhoods there is a lack of properly built roads and associated drainage systems. This situation creates serious problems since frequent major flooding events are beyond the current management capacity of Dar es Salaam (DCC 2010, p. 14).



During heavy rainfall many roads in the city become flooded.

¹Anton Fouquet, involved in Nipe Fagio, conversation 26th of March 2014.

²Matthew Haden, involved in Nipe Fagio, conversation 26th of March 2014.

MAJOR TRAFFIC CONGESTIONS

The road network in Dar es Salaam consists of an arterial road system. Hence the smaller roads all feed into five larger radial roads and one ring road that lead to the city. The majority of Dar es Salaam's inhabitants work in the centre and live outside which has resulted in peak hours of traffic congestion during the mornings and evenings. In the morning traffic speed reduces to between 20-30 km/h at a distance of approximately 30 kilometres from the centre and while entering the city centre there is a further reduction to between 0-10 km/h and in the evenings the reverse happens (Kiunsi, 2013). However traffic congestion is a fairly new phenomenon, as recent as the mid-1990s it was not a problem except for a few roads in the city centre (Kiunsi, 2013). Hence in just a few years this has turned into a serious problem that is growing on a yearly basis and today normality for the Dar es Salaam citizens. Consequently when going anywhere within the city borders it is necessary to plan ahead or otherwise you may be stuck in traffic for several hours. Following is a quotation from Finnegan Kato, 51, an employee at the Dar es Salaam city council in an interview for the Sabahi web news site.

"Imagine: I have to wake up at 4:30 am to prepare to get on the road by 5:15 am to travel hardly 30 kilometres from home to my work," Kako told Sabahi. "Normally, I spend 20 minutes on the road, but if I miss this slot and start my car at 6:00 am, with these 30 kilometres, I normally reach my office after 9:00 am."

(Balile 2012)

This development is a result of a combination of factors including the fast growing population, rapid increase in number of cars and poor public transport. The traffic congestion is further increased during heavy rainfalls and poor weather conditions which occur regularly during the rainy seasons. Apart from cars the modes of transportation that exist are taxi, "dala dala" (mini bus), "bajaji" (tricycle) and "boda boda" (motorcycle). Bajaji and boda boda have become especially popular since they violate the traffic regulations by using alternative routes along sidewalks and they easily go in between the cars making the travel time shorter. However this also adds to the traffic problematic and they have now become prohibited in the city centre.



Figure 12. Map showing the arterial road system of Dar es Salaam.



The city is struggling with daily traffic congestions. Photos: © Linn Nilsson

A CITY OF GATED DWELLINGS

Contemporary Dar es Salaam has become a city of gated dwellings. This development started taking place in the 1970's and is believed to be largely driven by an increased city crime rate (Bulamile 2009 p. 7). Hence people consider and believe that by enclosing their houses they are increasing home security and home privacy. Bulamile (2009 p. 185) argues that in fact many of the homeowners regard the perimeter walls as crucial for reducing opportunities for crimes to occur. A side effect of this development is that the connecting public streets in many cases are converted into narrow and unsafe passages totally excluded from the residential plots. They become, as Jacobs express it (1961, p. 41), "streets without eyes" thus the natural surveillance disappears and the street appears to be no man's land. Moreover by fencing off the

streets, no one feels responsible for their maintenance and they are often transformed into places for litter and waste water, further limiting social interaction, unattractiveness and sense of security.

Therefore even though gated dwellings may cause the homeowner to feel safer this development could actually be contributing to a decreased neighbourhood security. In the event that a crime should take place in somebody's home it is not likely their neighbours would even be aware of it (Bulamile 2009 p. 188).

The limiting social interactions caused by gated dwellings have further been argued to increase the segregation between different social groups in a city. Lemanski (2004) that has studied gated communities and gated dwellings in South Africa states:

"...the walls do not respond to difference and fear but actually deepen segregation and reinforce fear by excluding difference and limiting social mixing, thus increasing paranoia and mistrust between groups."

(Lemanski 2004)

This phenomenon is further confirmed by Bulamile (2009 p. 191) arguing that it is commonly found even in Dar es Salaam neighbourhoods. Residents believe that crimes is something happening outside their neighbourhood caused by people from poor areas, a perception that unconsciously leads to prejudice and segregation between social groups.



The majority of dwellings in the city's planned areas are gated. (left) House in Sinza Mori.

LOSS OF GREEN STRUCTURE

In planning terms urban vegetation is often referred to as green structure. This is a term that links the urban vegetation with areas of water within the city boundaries. Green structure includes the entire city's network of vegetation and may consist of for example parks, private gardens and river valleys. Furthermore the network of green structure often stretches to connect the city with the natural and agricultural lands at the outskirts of the city and may therefore function as an important ecological corridor for native flora and fauna (Colding et al., 2013, p. 69).

The rapid and expansive urban growth has had a detrimental impact on the green structure of Dar es Salaam. By the end of the 1990s the green areas between the regional roads connecting the city to the outskirts had been filled with development. Hence the natural ecological corridor had been broken down to small patches of green space. The string of green continuity that historically has been present had therefore been lost (Mwamfupe 1994 see Mng'ong'o 2004, p. 101).

A study investigating Dar es Salaam's loss of urban vegetation found that from 1982 the quantity of green areas had decreased from 80% of the city total area to 73% in 1992 and further down to 55% in 2003 (Mng'ong'o, 2004, p. 94). Additionally by 2003 the majority of native plant species within the city centre had been replaced by exotic plant species, completely depleting the developed city of forests and woodlands except for a few areas of bushes and grasses. These areas are institutional such as the grounds of The University of Dar es Salaam and military areas. Example of exotic species that have replaced the native vegetation are, food crops such as sugar cane, banana, cassava and other vegetables, pineapple for cultivation. Also several species with medical or ornamental properties such as Neem and Ficus benjamins, Indian almonds and Ashoks (Mng'ong'o, 2004, p. 100).



The grounds of Dar es Salaam University contain large unexploited green areas.



Located on the Msasani Peninsula there is a large green military area.



CHAPTER 4 : THE COAST

Chapter four begins by describing the different regulations that concern development along the Tanzanian coast. Further it explains the different categories of developments that occur along the coast-line from Kunduchi down to the city centre. This inventory is summarized by a map of how we perceive the present situation concerning public accessibility along this coastal stretch. This chapter also introduces several different types of non-public beach areas to understand how they vary from the project site and why people might choose to go there.

LAND LAWS & REGULATIONS

To be able to investigate the expansion of developments along Dar es Salaam's coastline it is necessary to acquire a general apprehension of how land tenure works in Tanzania and what regulations concern the coast.

According to the Tanzanian regulation, Land Act no. 4 of 1999, all land in Tanzania is public, vested in the President as trustee for and on behalf of the citizens. The land has been grouped into three categories, general land, village land and reserved land. For the purposes of the management of land the president may transfer or change one type of land to another (Government of Tanzania 1999). This law is a remnant from the German colonial era when it was declared that all land in Tanzania was vested crown land under the German emperor. This was later enacted by the British into law (Lerise 2000; Citing James 1971).

Furthermore, in other words this means that in Tanzania officially there is no concept of private ownership in regards to land. This means that anybody has the right to use and occupy land on lease. The lease contract can be short term of 2 years or longer terms of 33, 66 or 99 years. To lease land you must apply through the different municipalities or if it concerns special projects at the Ministry of Lands, Housing and Human Settlement Development, that is the governmental ministry in charge of land issues (aUN-HABITAT 2010, pp. 3-4). This has resulted in a quite complicated tenure system, adding to this complexity is the fact that the majority of the housing market in Dar es Salaam is informal and land acquisition in this sector has found a way of operating outside the formal laws (Kombe & Kreibich 2000).

When it comes to the coastal development concerning reserved land (public land), there are a couple of laws that are of primary importance.

Chapter 320 The Public Recreation Grounds Act [PRINCIPAL LEGISLATION]

This law was established to provide, control and management of public recreation grounds. It states how the area should be kept once declared as a recreation ground. The local municipality or township in control of the area has to make sure that this law is followed. For example it is their duty to ensure that such recreation ground is used for the purpose of games, exercise and recreation and for no other purpose. Furthermore they are in charge of any type of facility located in the area including dressing rooms, lavatories and similar buildings. They also have the right to enter into contract with person or club to that take want to provide amenities such as refreshments rooms or lavatories or to make charges to members of the public for admission (Government of Tanzania 1954).

The Town and country planning ordinance (Cap.378): The Town and Country Planning (Public Beaches Planning Area) Order of 1992.

This law concerns all the land lying within two hundred and fifty meters, fronting the shores and beaches of the Indian Ocean.

The main objective of this law is to reserve the shores so that the land can be developed and used for water-related human activities. Furthermore the law shall protect the coastal environments against degradation and pollution. Finally it is also meant, to avoid privatization of the beaches and to allow for access and enjoyment by the general public.

The law states that no development other than conservation or that of strictly water-related human activities shall be carried out within any area under the provision of this order without a planning consent prepared by the Minister. When such a planning consent is accepted, a strip of land of width no less than 60 meters from the high-water mark shall be reserved exclusively for conservation and for strictly water-related human activities. Water-related human activities are explained as the following, tourism, aqua recreation, luxury

beach hotels, fishing, boat/ ship building, harbours, mining, defence and security, structures of supreme national importance (Government of Tanzania 1992).

The Environmental Management Act, 2004 (part V section (c) Conservation and protection.

If there are any conflicts between the different laws concerning management and utilization of land in regards to the environmental aspect this act prevails. The Minister has the right to declare any area to be environmentally sensitive under this act. When it comes to guidelines and measures for protection of shorelines the law states that it is an offence to use, erect, construct, and place alter, extend, or remove a structure in or under the shoreline, prior to permit issued by Minister.

Furthermore human activities of permanent nature that may compromise or negatively affect the protection and conservation of the coastal environment shall be carried out within 60 meters.

The following pages portray the range of the various types of developments that occur along the coastline of Dar es Salaam from the Kunduchi area down to the city centre. The developments are categorized according to public accessibility (Government of Tanzania 2004).

COASTAL DEVELOPMENTS

PRIVATE & GOVERNMENTAL COASTAL AREA

These areas are considered private property. It is not possible for the public to pass these areas along the coast, since they are developed all the way to the shore/cliff edge and are surrounded by walls or fences.

1. MILITARY AREA

At the top of the Msasani Peninsula there is a large forest area that has been allocated military facility and is therefore prohibited to enter.

2. POLICE OFFICERS MESS

3. RESIDENCIAL AREAS






Two examples of residencies that are developed along the whole coastal width, Left: Residency neighbouring the Yatch Club, Right: Residency at the end of Toure Drive .

SEMIPRIVATE COASTAL AREA


This category includes any kind of coastal development that target guest/costumers with higher socioeconomic status than the general population of Dar es Salaam. Furthermore these developments have either made it impossible or difficult to pass along the shore/coast.

4. WHITE SANDS HOTEL AND RESORT




This hotel has built a bridge/outdoor seating area in the ocean. This makes it difficult for people to pass along the shore.

5. GIRAFFE OCEAN VIEW-HOTEL AND BAR




6. SLIPWAY SHOPPING CENTRE




This is a large fenced off shopping area. It is developed all the way to the ocean. Photos: © Linn Nilsson

7. DAR ES SALAAM YACHT CLUB



To get access to this club you need to apply to become a member and pay a regular membership fee.

8. THE SEA CLIFF HOTEL



The sea Cliff Hotel is one of the bigger hotels located on the tip of the Msasani Peninsula. The restaurant and outdoor areas are built all the way to the edge of the cliffs.

9. THE GOLDEN TULIP



This hotel has developed along the whole coastal width.

A map showing the coastline from Kunduchi in the north to the City Center in the south. Numbered markers (1-16) indicate various coastal developments. Markers 4, 11, and 5 are near Kunduchi. Markers 12, 10, 7, 6, 3, 1, 8, 9, 2, 13, 3, 14, 3, 15, and 16 are further south towards the City Center. A scale bar shows 0 to 2 Km, and a north arrow is present.

Figure 13. Map locating various types of coastal developments from Kunduchi to the city centre.

33

SEMI PUBLIC COASTAL AREA

This category includes coastal developments that do not fence off the beach/coast. Hence the development follows the 60 metre regulation and it is easy to pass by the establishment without using their facilities. It is also possible to spend time on the beach strip in front of the establishment as a non-costumer.

10. MBALAMWEZI BEACH CLUB/CINE CLUB



PUBLIC COASTAL AREA

This category includes coastal areas that have been allocated by the government as public. However it also includes leftover coastal stretches between private and semiprivate establishments that are easily accessible and open for everybody to use.

11. EMPTY RESIDENTIAL PLOT



Plot of land that has not yet been developed.

12. KAWI BEACH



Large public beach that is easily accessible from the road.

13. COCO BEACH

14. PALM BEACH

15. OCEAN ROAD



Large public beach located next to the city's fish market. However the beach is not very popular for recreational purposes. we were warned that this area is not safe and that muggings happen frequently.

16. KIVUKONI WATERFRONT



The city's main harbour area. Photos: © Linn Nilsson

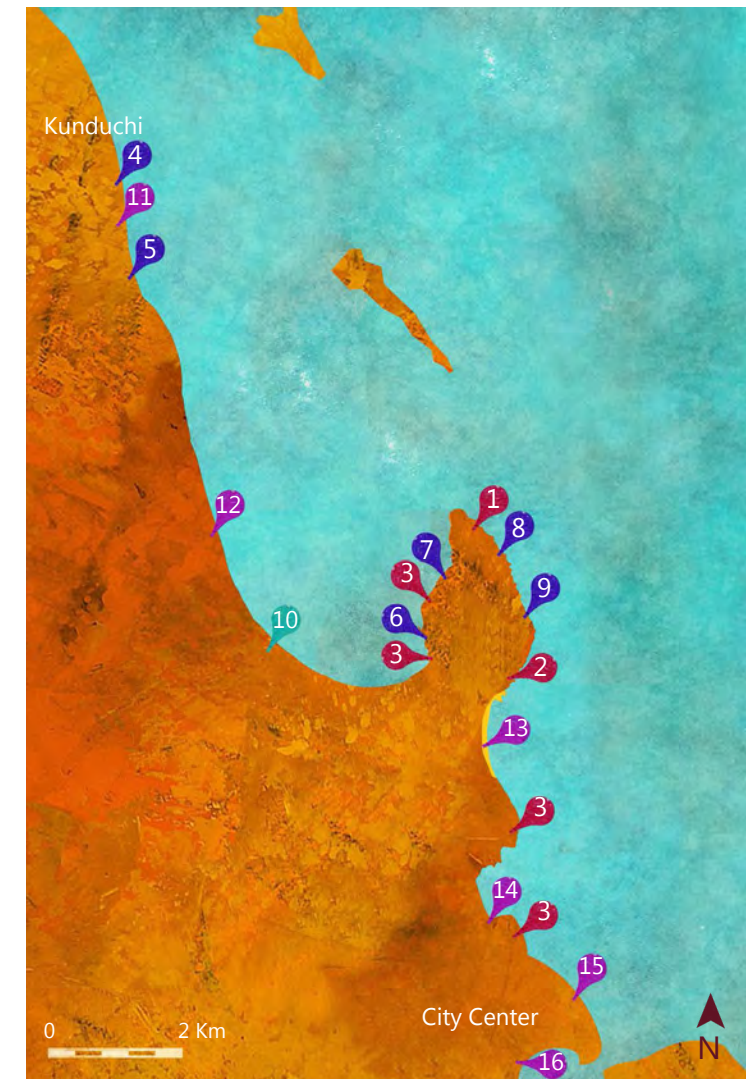


Figure 13. Map locating various types of coastal developments from Kunduchi to the city centre.



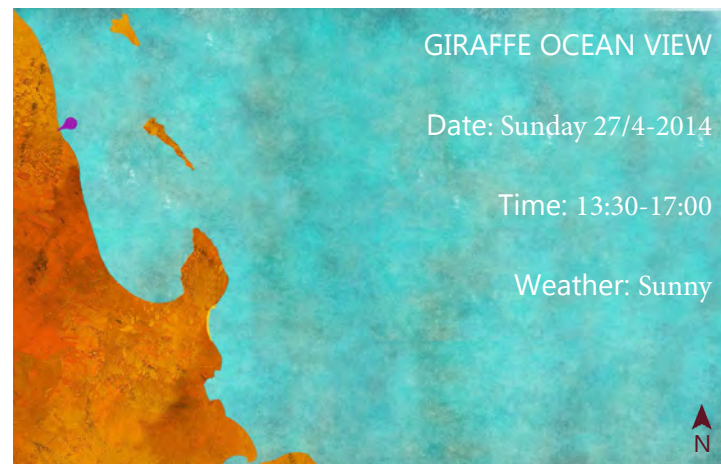
Figure 14. Map showing a conclusion of the coastal situation concerning coastal developments.

CONCLUSION

The inventory of coastal developments can be divided into three general areas that follow the same type of development pattern in relation to public accessibility.

1. This area is highly developed with hotels and private residences. However since the majority of these follow the 60 metre regulation it is still possible to walk passed them along the shore. Although the access points to reach the shore are decreasing and becoming further apart with increasing exploitation.
2. The area around The Msasani Peninsula is the most densely developed and has the lowest range of public accessibility.
3. These areas are completely public.

SITE VISITS TO NON-PUBLIC BEACHES



To understand the benefits of private beaches and why people choose to go there we did four site visits presented below.

Entrance

The Giraffe Ocean View is a hotel, it does not cost anything to enter their premises however you are expected to purchase beverages or food in the restaurant.

Facilities

The hotel consisted of a roofed open air restaurant looking out over a large courtyard. In the restaurant it was possible to watch sports on big TV screens and it is where the toilets were located. The courtyard contained various tables and places to sit and socialize. There was also a playground and pool. From the courtyard a wooden bridge lead out over the water, where a roofed platform was built possible to rent for parties and larger gatherings.

Boundaries

It was possible to enter the hotel in two ways, either from the main entrance or from wooden stairs leading up from the beach. The hotel was fenced off on the sides. Even though it was possible to pass the hotel walking on the beach, the wooden bridge was built in a way that has not considering this, hence making it very difficult. When we were there it was low tide it is possible that during high tide the water would make it impossible to pass because the hotel has been built too close to the ocean. If you did not buy anything it would not be allowed to use the hotel facilities.



People density

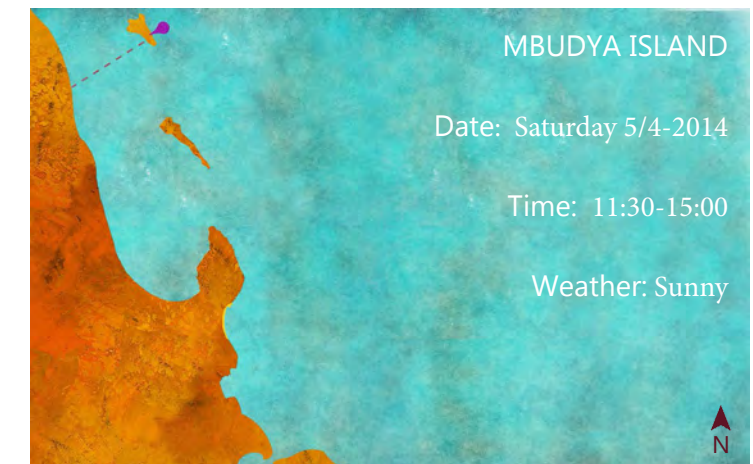
The hotel was very busy almost all the tables and seating places were occupied.

Observed Activities:

Numerous people were sitting eating, drinking, socializing and watching sports on the big TV screens. , lots of children playing in the playground and pool and the noise level was very high. At one point we saw a few kids swimming in the ocean, however we were not certain if they belonged to the hotel guests or not. Later in the afternoon the hotel arranged entertainment with music and traditional dancing. The activity on the beach beneath the hotel was quite high. As the evening approached more and more people passed by the hotel crossing underneath the wooden bridge, a few guys played some football next to the bridge and we also saw people kayaking.

Impression

The overall impression of the hotel was good. It was nice that there were so many people. We also got the impression that the majority of visitors were locals spending the evening there and not tourists or guests of the hotel. The hotel staff was very nice and we did not feel much pressured to buy a lot. Even though there were no guards and people that were not guests of the hotel were allowed to pass the hotel and use the beach freely the wooden bridge clearly dominates the beach and limits the public access and use.



Entrance

To get to the island you have to take a small boat that leaves from the hotel complex White Sands situated in the Kunduchi district. The fee for the boat was 10000 TZS and for entering the island which is also a nature reserve 16000 TZS per person. The boat ride takes about thirty minutes.

Facilities

The island had a simple open air restaurant with just a sunroof. Non flushing toilets were available and if you need shelter from the sun it was possible to rent Tanzanian beach hut.

Boundaries

Since the beach is located on an island it is quite difficult to get to. You are dependent on the small boat which does not necessarily leave according to schedule.

People density

There were quite a lot of people on the beach, however it did not feel crowded there was still plenty of space. Furthermore it was also possible to walk around the island which meant that you could go off and find your own private spot, which also made it hard to estimate the total amount of people visiting the island.

Observed Activities

The main activity on the beach was sun bathing, swimming and people buying food and beverages in the small restau-



The relaxing beach.



Shelter from the sun.



Dar es Salaam from distance.



On the boat after wading all the way from the shore.

rant. There were several bigger groups there during or visit and a strong party feeling since music was playing loudly from speakers. One of the groups of people were conducting some kind of competition with a commentator explaining the rules and scores.

Impression

It was quite difficult to get to the island. When we left it was low tide which meant that the boat could not come to the shore so we had to wade a couple of hundred meters in knee deep water to get to the boat. It was also very confusing where to buy tickets and how much it should cost. While on the island the vibe was very relaxing, it was very clean, we did not notice any trash along the beach. The island was also a nice break from the busy city life of Dar es Salaam, that felt very distant. However since it was quite expensive and difficult to get to, we got the impression that it was mainly tourists or expatriates that went there.



Entrance

The fee for entering was 5000 TZS per person. To enter the area you had to pass through a metal detector and no food or beverages from outside were aloud in the area.

Facilities

The beach club consisted of a restaurant, built in a Tanzanian beach hut style, open towards the ocean. In the club area there was a swimming pool, toilets, changing rooms, and a playground. The restaurant often organized concerts.

Boundaries

The club was closed off by fences on all sides except the one facing the ocean. The side fences were extended to a little more than half of the beach width. This made it possible for people that had not entered through the main gate to pass along the beach and swim and hangout in front of the beach club. To make sure that none of these people went into the beach club using their facilitates without paying the entrance fee there were two masai -guards keeping watch over the area.

People density

When we first arrived at the club there were very few people there. The people density gradually increased as the time passed.

Observed Activities

The majority of people were sitting and enjoying food and



Security check at entrance.



Restaurant and pool.



Swings.



Fences.



Activity on the beach.

beverages in the restaurant. There were children playing in the playground and on the beach. A few people were swimming in the sea, we also noticed people using the pool. Adjacent to the fence along the beach there were vendors renting out bathing suits and rubber tires for swimming. As the evening came the activity on the beach increased. A majority of the people arriving at this time came along the beach, hence not paying the entrance fee. These people were hanging out by the boundary to the club, socializing, swimming and playing football.

Impression

At the beginning when entering the club we felt uneasiness due to the security check, however this feeling quickly disappeared. The club felt relaxed and it seemed like a quite popular destination. When sitting in the restaurant we did not experience pressure to buy a lot, there was no problem to just sit and enjoy the view. The beach club grounds were cleaner than the adjacent areas however trash could still be found on the beach and in the restaurant area. We appreciated the fact that the club beach boundaries were very fluid and that the public were allowed to move relatively freely along the beach and enjoy the area in front of the club.



Entrance

To get to Kigamboni where the lodge was situated it is necessary to take a ferry from Kivukoni ferry terminal in the very center of Dar es Salaam. The ferry cost 400 TZS and took around 15 minutes. The fee for entering the lodge was 5000 TZS if you intended to use the hotel facilities, if you wanted to only spend time on the beach the fee was 2000TZS. This fee was collected by the staff once you had entered the area and not by the hotel main entrance.

Facilities

The Mikadi Beach Lodge consisted of a restaurant and simple beach houses that could be rented for overnight stays. Toilets and showers were located separately close to the beach huts. The lodge also had a swimming pool, hammocks and swings were placed around the area.

Boundaries

The lodge was enclosed by wooden fences on the sides and completely open towards the ocean. The beach width was not very wide, it was possible to pass by the lodge and swim in front of the lodge if you were not a visitor however it did not feel acceptable for people who had not paid to sunbath in front of the lodge. The lodge had a Masai guard looking over their grounds. On the right hand side of the lodge there was another beach club and next to this club there was a strip of public beach. To the left of the lodge there was a military area which no unauthorized person was allowed to enter.

People density



Getting off the ferry in Kigamboni.



On the ferry.



Masai guard and fence.

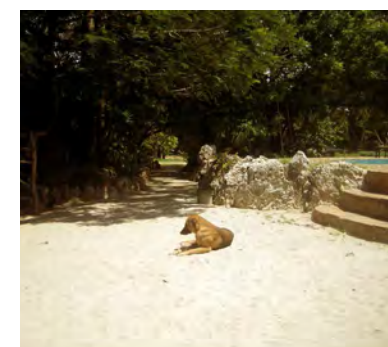


Bungalows and beach.

The lodge was very empty during the time we visited. There were around three other small groups of people. Furthermore it looked like a majority of the visitors were visiting the beach lodge for the day and not staying overnight.

Observed Activities

At the time we visited, there was a group of people relaxing in the restaurant area. One couple was swimming in the pool and the other visitors were hanging out on the beach and swimming in the ocean.



Entrance. Animals on the beach made it feel homelike.



Facilities on the beach.



Restaurant, pool in background.



Showers.

Impression

The Mikadi Beach Lodge was a very relaxed place, the staff was very nice and the fact that you did not have to pay until you had entered contributed to the relaxing vibe. The area including the beach was very clean we did not notice any trash. However we experienced the water quality to feel more polluted than the other places that we visited. The fact that the lodge was situated between a military area and another beach club took focus from the fact that the public were not allowed to hang out on the beach in front of the lodge without paying. Similar to the islands Kigamboni feels very far away from the busy city life of Dar es Salaam.

CONVERSATIONS WITH VISITORS ON
NON-PUBLIC BEACH

This page illustrates the beach visitor's experiences of non-public beaches. Key words are written in pink.



"I'm responsible for the *security*. It is very *rare that incidents occur* maybe once every seventh month. There has only been one water accident since I started working here, the person involved went to the hospital and died. I do also *watch* so that people from other beaches don't come here. The area on

the other side of the beach is for military, you can get beaten if you enter it, people are walking there but that's not my responsibility."

Isaya, age 26. Mikadi Beach Lodge.
Watchman at Mikadi Beach Lodge for 1 ½ years.
From Moshi.



"I visit Coco Beach sometimes and I use to take my son there, he is 1 year and 10 months old. However I think it is less safe than here. It is very crowded, chaotic and people are even fighting there. This beach makes me feel *safe* because of the *security guards*, it is *not overcrowded* and there is *less gangs*."

Selemani, age 24. Mikadi Beach Lodge.
Salesman at a shopping centre.
From Dar es Salaam.



"I come here every day to *exercise and swim* sometimes also in the weekends. I don't pay I just enter the beach from the side, I put my clothes there and then I swim here."

Frank, age 28. Mikadi Beach Lodge.
Marine military soldier, working in Kigamboni.
From Zanzibar.



"This is my first time here, I haven't had anyone to go here with. But today my friends asked me.

I like Coco Beach, the environment is nice. I like that it is a lot of parties and people there. However

there is a lot of chaos and thieves there and I have been robbed several times. They have stolen my phone and money, thefts usually occur in the evening around 1 o'clock. People leave the beach around 19-19.30 and that's when the robberies start.

I'm ok with paying 2000 TZS, it is also cheaper during week days, only 1000 TZS.

Amanis friend Ginger adds: "*Coco Beach is not clean, if it were, I would like to go there.*"

Amani, age 25. Mikadi Beach Lodge.
Business man.
From Dar es Salaam.



"I choose to visit this beach Because of the *security*. There are other beaches here in Kigamboni where you will get robbed, there are people stealing your clothes when you're swimming.

Kijiji Beach Resort, Gorilla Camp (1000 TZS) and South Beach Resort (6000 TZS) are *nice* beaches here. Sunrise Beach Resort is also nice, there is no fee but the food is very expensive.

I don't mind paying a fee because it *keeps the youngsters away* and people can come here to *relax*.

I go to Coco Beach sometimes on holidays. But there is no sense of relaxation and everything is very unorganized."

Godfrey age 35. Mikadi Beach Lodge.
Accountant.
From Kigamboni.



"I use to play *live music* here a couple of times per month, I sing and play guitar and bongo drums. We play African music like bongo flavor. Today I'm here for *recreation*. I like this beach it's *clean*."

Muhamad Abdallah
"d.Man". Age 42. Cine Club.
Artist.
From Dar es Salaam.



CHAPTER 5 : GETTING TO KNOW COCO BEACH

Chapter five describes Coco Beach through our experiences from the various site visits. It begins with a narrative of our first visit on the beach a Sunday afternoon. The chapter goes on to give a short history review of The Msasani Peninsula where Coco Beach is located. Thereafter a land-use map is presented to describe the present situation on the peninsula. Following is an inventory of the present circumstances on Coco Beach including, climate, traffic, pollution, ocean wildlife, safety and vegetation/materials. Finally there is a description of the different stakeholder conflicts and what future plans exists concerning Coco Beach and the connecting coast.

THE PEOPLES BEACH

A Sunday afternoon at Coco Beach the 9th of March 2014

We did our first Sunday visit at Coco Beach on a hot, sunny day in March. Our Tanzanian friends Benson and Caren had kindly offered to accompany us. We met up at the bustling market place Mwenge in the north western part of the city close to our house in Sinza Mori. The market was loud and crazy with lots of people, traffic and vendors screaming out their offers in megaphones. We tried to quickly pass through the market and catch the right dala dala at the bus station. While on the bus it was hot and crowded and people were sitting and standing everywhere. Since Mwenge is the starting point of the bus route we were lucky to get seats. The bus started to drive towards the city centre and it was a very bumpy ride out of our dense neighbourhood until we reached the larger paved Bagamoyo Road. "Let's get off at the Baobab stop and change to bajaji", Benson said. It is a bus stop underneath an enormous Baobab tree rooted in the middle of the busy Ali Hassan Road. We pushed us out from the dala dala and paid 400 Tanzanian Shilling (TZS) each for the ride. Immediately a group of bajaji drivers came towards us. Benson quickly chose one of the boys and started to deal about the price. We agreed to a price of 3000 TZS for the remaining distance to Coco Beach. The four of us jumped in to the vehicle, the radio was on and driver drove fast and jerky. On the way through Oysterbay we passed shopping plazas and western style buildings, suddenly the bajaji took a right turn and the turquoise Indian Ocean appeared in front of us. We had finally reached Coco Beach.

The bajaji let us off at the main entrance of the Coco Beach restaurant, which is an area acting as an drop off zone and vehicles and people were moving in all directions. Today there was also a concert on Coco Beach and loud music was



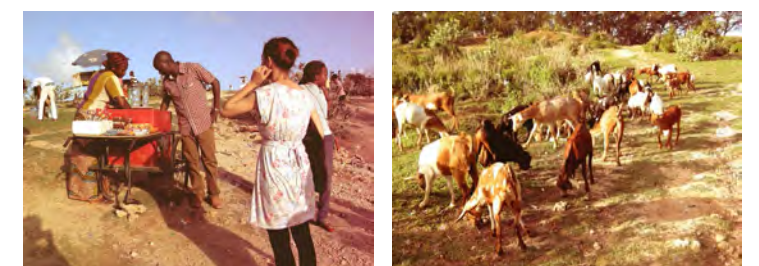
playing from speakers and you could feel the base. A stage was installed close to where we were dropped off and groups of people were walking towards it to watch the concert. We left the chaotic meeting point and started to walk towards the northern cliffs. Hundreds of people enjoyed the beach involved in different kinds of activities. We stopped for a while to watch a group of boys standing in a circle taking turns to perform acrobatics in the centre. The surrounding audience was shouting and clapping their hands. Next to them a large group of boys were loudly playing football in the sand.



Our walk continued uphill to the cliffs where we got struck by the spectacular view. From this point we could see the city silhouette and the overcrowded beach, at the same time as nice and cooling breezes were sweeping in from the ocean. A lot of people were sitting on the cliffs watching activities in the water. There were also a lot of parked cars and people



were sitting inside or in the shade of the vehicle. It was time to go down for a walk along the shore. On the way down we passed several vendors selling refreshments and ice cream from their bicycles. Benson bought a cold drink from a lady and we continued downhill passing a herd of goats slowly moving uphill grazing at the grassy parts of the cliffs. Down



at the beach the sand was white and warm and our walk was very hot. It was clear that we drew attention to us since we were the only ones obviously not from Tanzania. A lot was happening along the beach, people were bathing and swimming in the ocean, children were playing along the shoreline, building sand castles and flying kites. Groups of teenagers



were hanging around and families were having pick-nicks. A lot of people were seeking shade underneath the groves of cactuses and pandanus palms while watching the beach activities. The atmosphere expressed a sense of joyfulness and enjoyment. Even though the weather was rather oppressive we met a jogging man and many boys were cycling along the beach. We passed several stalls renting swim suits and swimming tubes. Various vendors were also walking along the beach selling refreshments and suddenly a young boy passed carrying a carton with boiled eggs on his head.



After a 20 minutes long walk we arrived at the south part of the beach where the atmosphere felt somewhat different. It was calmer and more families than youngsters' especially Muslim and Indian families. We continued to the food market to try out some local delicacies such as fresh coconuts



with straws, cassava, sugarcane and ginger lemonade. Just next to the food stalls hundreds of cars were randomly parked on the muddy ground. The market area was flooded and covered by big puddles, limiting the parking area and peoples movement. After snacking



it started to darken and we walked back along the grass strip above the shore towards the restaurant. Next to us we had Toure Drive, which at this time was incredibly busy. The large number of cars that wanted to enter area caused chaotic traffic jams. Before going back home we ordered a plate of barbeque and crisps at the restaurant, enjoying the evening and the ocean view before going back home.



LOCATION OF PROJECT SITE

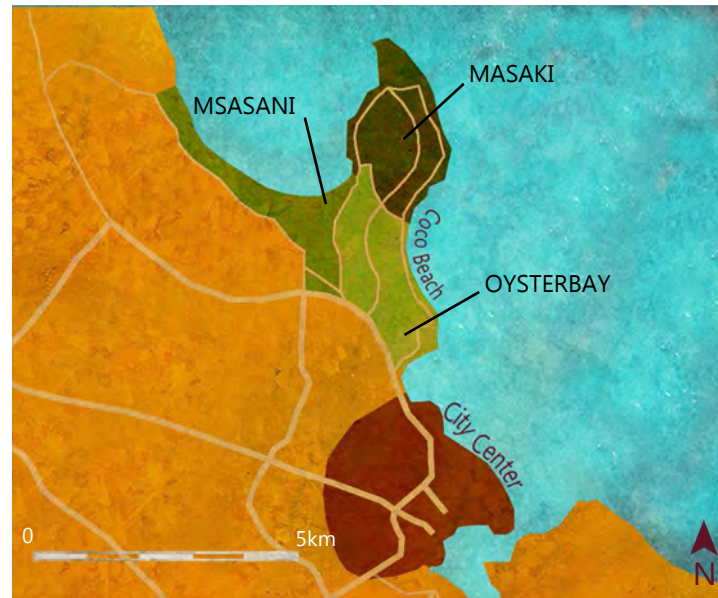


Figure 15. Coco Beach is located 7 kilometres from Dar es Salaam's central business district and belongs to Kinondoni Municipal Council and the Msasani Ward. It is located in Oysterbay on the Msasani Peninsula.

THE MSASANI PENINSULA

In the middle of the east coast of the Msasani Peninsula, Coco Beach is situated. As explained in chapter 3, the British government originally allocated the Msasani Peninsula to districts consisting of European-style buildings in 1927. The idea was to provide Europeans with housing and amenities exclusively dedicated to them. After independence in an attempt to create a more integrated Dar es Salaam President Nyerere implemented the Building Acquisition Act in 1971. This act granted him the power to acquire buildings on the behalf of the national government as long as his actions served the public interest. Moreover it gave Africans the opportunity to live across the whole city including the areas previously unobtainable on the peninsula. African plots were allocated along the ocean-front street Toure Drive. Unfortunately, many African residents felt out of place on the peninsula and found it unappealing (Smiley 2010). The fact that these areas were created as a European settlement with large

homes and gardens made the living more expensive than in other areas. Furthermore the distance from the city centre made them less convenient than more centrally located districts. Also, the main road that connects the peninsula with the city centre is often affected by major traffic congestions and the bus service is extremely limited (Smiley 2014). Many Africans therefore sold their plots and used their profits to build new homes in what to them were more comfortable and familiar areas of Dar es Salaam (Smiley 2010).

The intention of the Building Acquisition Act was benign but it did not work in reality. Instead the Msasani Peninsula has remained the central location of expatriate's life. It possesses a lot of amenities such as restaurants, supermarkets and recreational facilities open to everyone but requiring a large budget that is out of reach for the majority of Dar es Salaam's residents. (Smiley 2010 s. 328).

EXISTING LAND-USE

The Msasani Peninsula is characterized by ambassador residences, gated dwellings, offices, hotels and institutions. Following are a map showing the existing land use on the peninsula and the relation of these areas to Coco Beach.



Figure 16. Land use map over the Oysterbay and Masaki district (based on KMC 2011, p. 11).

COCO BEACH

Coco Beach is a 2 kilometres coastal stretch consisting of a 1.5 kilometres beach fronting the Indian Ocean bordered impressive cliffs in both the north and the south direction. During the 1950s this was a beach reserved for the country's rulers to relax and swim, though since independence Coco Beach has become one of the most popular public beaches in Dar es Salaam visited by hundreds of people each week (Coco Beach Audit Report 2005). The visitors come from all parts of Dar es Salaam though very few of them are part of the expatriate group that mainly occupy the peninsula.

CLIMATE

Since Coco Beach faces the Indian Ocean the climate is extreme in many ways. Strong saline winds sweep in from the ocean and creates a tough climate for vegetation and the fact that Coco Beach is exposed to intense sun makes the microclimate even tougher. It can be assumed that the ground soil consist of a high proportion of sand which is nutrient poor. During the rainy-season and after heavy rainfall parts of Coco Beach is subject to flooding. An area that is largely affected by this is the food market. Coastal erosion is another serious problem that threatens the beach. Erosion is caused by a combination of factors such as the climate (water/wind), certain human activities related to overutilization and developments too close to the shoreline.



Beach erosion.



Beach erosion.



The tidal range is approximately 3 metres in height and occurs 2 times every 24 hours (DYC 2014).

GETTING TO AND FROM COCO BEACH

There are three main roads that serve the Msasani Peninsula where Coco Beach is situated, Chole Road, Haile Selasie Road and Toure Drive. In the area there are no planned or formal parking lots except from those belonging to hotels, schools, institutions, shopping and business centres. Nearly none of the roads are provided with pedestrian walkways which forces pedestrians to interfere with vehicular traffic when reaching the area by foot. Furthermore there is a high ownership of private cars in the area which has resulted in only one dala dala bus line serving the peninsula. The bus line departs from the Old Post Office in the city centre and drives along the edges of the peninsula in a loop. Along this loop there are no bus bays for the passengers and there is no bus stop along Coco Beach (KMC 2011, p. 18). Out of a population of 34,950 incoming residents 64 % are entering the area with private cars, 9% by public transport and the remaining 27% are pedestrians (KMC 2011, p. 22). Because of this many of the visitors reaching the beach from other parts of town assumingly take a dala dala leaving from Mwenge bus station that stops adjacent to the peninsula on the Old Bagamoyo Road. From there they either walk or take a bajaji.

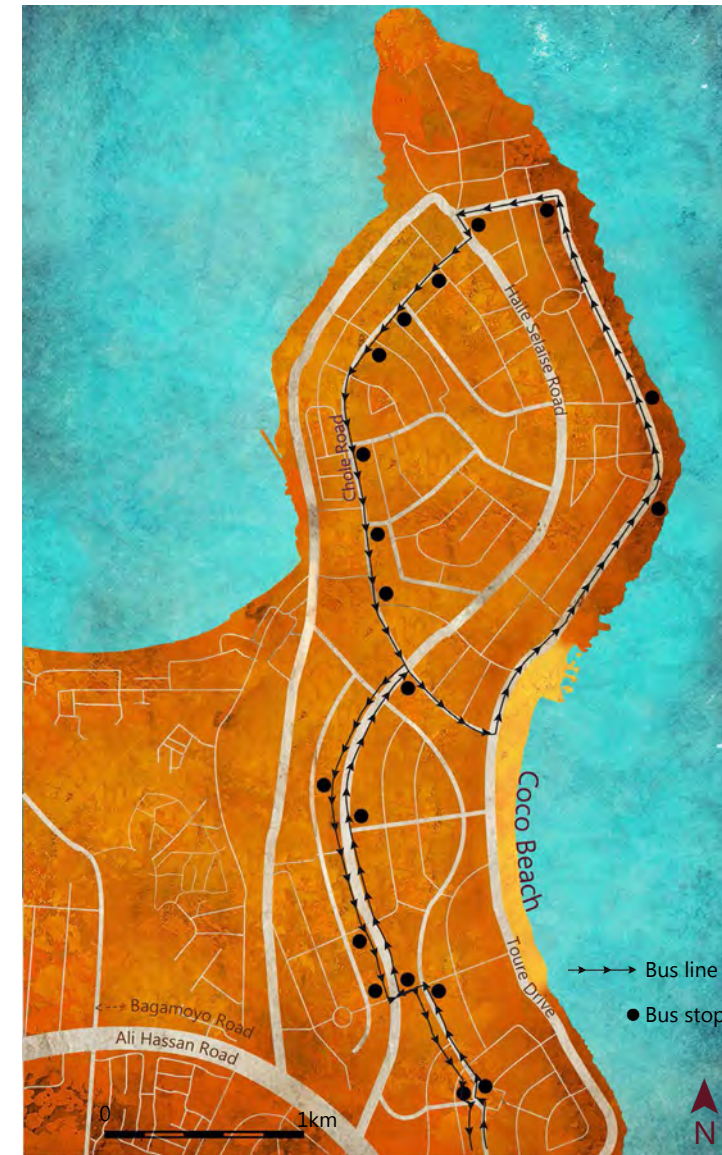


Figure 17. Map showing the road network and the only dala dala bus line serving the Msasani peninsula (based on KMC 2011, p. 21).

TRAFFIC ON THE BEACH

The principal problems regarding traffic on Coco Beach is firstly the lack of public parking areas and secondly that there is no functioning storm water drainage. There are two larger areas, one by the food market and one by the restaurant that function as unofficial parking lots. However there is no organized parking system and especially by the food market which is very popular on the weekends, people park their cars wherever there is some leftover space. When these areas are full people continue to park along the sides of Toure Drive creating a chaotic and dangerous environment. Furthermore the ground surface of the market consists of sandy soil with poor drainage capabilities because of this it is commonly affected by flooding during/after heavy rains. It is not uncommon that cars get stuck in the mud, which furthermore contributes to an unfavourable situation for the many food vendors.



Informal car park at the market.



Cars parked along Toure Drive.



Flooded car park at the market.

Another common problem is the fact that many visitors drive their cars all the way out to the beach boarder and the cliffs. People are using their cars to gain shade and seats while watching water activities and enjoying the ocean view. Concrete bollards have been placed along the road to prevent cars from driving onto the beach. However, these have little effect since several of the bollards have been run down and new ones have not been put in their place making it possible to drive along most of the beach area. This behaviour causes uncontrolled traffic movements thus decreased safety and also adds to the erosion of the beach.



Cars on the beach.



Run down bollards.

OPINIONS FROM BEACH VISITORS



"I think that Toure Drive is dangerous it is too narrow and people drive too fast. People also drive into the beach, that's dangerous because there are a lot of children here. It feels like people want to show off how fast they can drive. There should be some sign that says "Slow down".

*Jumbe, age 40.
Human resource manager, visiting beach with his two children.*

"I like to come here to watch people swim and enjoy the breeze. I visit the beach every Sunday and I do always come here by my car, if there should be some nice benches out here I would definitely park my car outside the beach area."

*Hamis, age 46.
Self-employed business man.*



WASTE

Coco Beach is largely affected by the solid waste flow of the city, mostly due to the fact that parts of the waste that is illegally dumped in the rivers later washes up on the shores. However the hundreds of visitors each week also leave litter behind. The piles of waste scattered along the beach has a large impact on the impression of the area.



The whole area of Coco Beach is affected by littering.



A lot of waste is washed up on Coco Beach from the ocean.

In order to get an understanding of the waste management system at Coco Beach we interviewed a urban planner³ at KMC. As we understood it KMC has the overall responsibility for the entire area which includes the overall maintenance as well as planning and design of the beach. Although, the Msasani ward is responsible for collection and transportation

of the waste to the city dump site. Moreover there seems to be little or no communication between the two agencies. The urban planner also mentions the restaurant owner on the beach and implies that it is his responsibility to take care of the waste that the restaurant generates including the surrounding area. This duty is not being fulfilled.

At present there are no waste bins anywhere on the beach. According to the urban planner³ a while back new plastic bins were placed along the area however as they are easily removed they were quickly stolen and have not been replaced. The restaurant owner has created a waste central close to the restaurant. Though since it is an open space and the waste is not sorted it looks more like a common dump. Furthermore the wind blows material everywhere, it is rummaged by waste pickers and attracts wildlife such as crows. Haden² whom has had some communication with the waste pickers on the beach tells us that there is a company that comes to pick up the waste once a week, although it is not clear to us what days and where the pickup occurs.



The restaurant dump site.



Unofficial dump sites are created along the beach.



Sometimes the vendors burn collected waste on the beach.

²Matthew Haden, involved in Nipe Fagio, conversation 26th of March 2014.
³ Urban planner at KMC, conversation 19th April 2014.

OPINIONS FROM BEACH VISITORS



“I know it’s not good for the humans but I throw my waste in the ocean.”

Hafidh, age 19.
Business student.

“We, the vendors contribute as a group to pay people to come and collect our waste.”

Ramadhan, age 35.
Barbeque vendor for 18 years on Coco Beach.



“We collect the waste, dig a hole in the sand, throw it there and cover it. I have never seen any trucks coming here to collect waste maybe around the restaurant.”

Mohammad, age 27.
Vendor renting tubes and swimsuits on Coco Beach.

“People who are throwing trash in the sea are stupid. We collect our garbage and throw it somewhere else.”

Group of youngsters, age 18-20.



“We want the beach to be clean.”

Ali, Saidi, Anuari and Isa, age 10-14.

“I walk from Msasani to Coco beach and collecting bottles. I sell the bottles to industries e.g Azam I got 200 TZS for 1 kilogram bottles. I collect 10 sacks per day, each sack weighs around 6 kilograms, the weight depends on how you pack the sack. I have done this for two months but it’s not enough money for living. I earn very little but I don’t have another job. But there is a lot of people doing it. I carry the sacks all the way to Msasani then I bring them to the buyer.”

Swalehe, age 29.
Bottle collector.

WATER QUALITY

Currently the Coco Beach Restaurant is the only place providing running water and fixed toilet services along the beach area. These are mainly intended for the restaurant customers however beach users also take advantage. The restaurant is supplied with water but connection to sewer lines are missing. Septic tanks and soak away pits are used for managing waste water from the restaurant. However, capacity and design of the existing four tanks do not match the quantities of generated waste (Buthawa 2005). The lack of toilet facilities, results in people carrying out their toilet needs in the surrounding shrubs and ocean water. At the food market one of the vendors brings two portable toilets each Sunday by car for people to use at a charge of 200 TZS per visit. He does not make a profit out of it but it is an appreciated service and an opportunity to advertise his businesses.



On sundays a portable toilet is brought to the food market area.

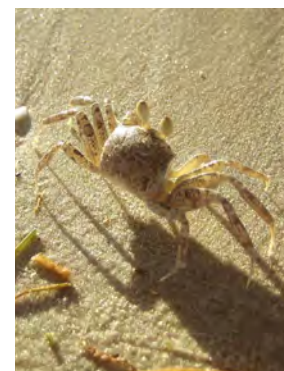
The quality of bathing water at Coco Beach could potentially be very poor since it is located close to the city harbour and estuaries of polluted rivers. In Lyimos (2009) study about coastal bathing water in Dar es Salaam Coco Beach was one of the sites being sampled due to its popularity. In comparison with other city beaches Coco Beach was characterized by very low concentrations of pollution. According to WHO's standards of classifying bathing water the seawater had very low values of faecal coliforms and therefore may be classified as fair to excellent water quality (Lyimo 2009). Even though the bathing water at Coco Beach was considered as acceptable at this time the situation may have changed during the five years since the study was carried out, however it does imply that the area is not directly affected by the city's main pollution outflow.

OCEAN WILDLIFE

The existing nature on Coco Beach has become much degraded due to the popularity and other external factors discussed in the previous paragraphs. Apart from the very obvious effects of pollution that can be seen on the beach these activities also have consequences that are invisible to the visitors, affecting the wildlife in the ocean. To get a better understanding of the indirect consequences that the human activity has on the ocean life we interviewed Timu Pastory¹⁰ from the NGO Sea Sense.

Sea Sense started 2001 with the mission to protect the indigenous species of Tanzania like sea turtles, whale sharks, dugongs and dolphins. Pastory means that every single species is suffering from the pollution humans are causing.

One of the main projects that Pastory works on concerns the preservation of sea turtles. He explains that there is too much human activity happening on Coco Beach for it to become a good nesting site for the green and hawksbill turtles that breed in Tanzania. However the sea turtles migrate along the coast passing Coco Beach to hatching sites in the Temeke district south of Kigamboni in Dar es Salaam. This means that they are still heavily affected by the human activities that occur there. One consequence is that the sea turtles mistake plastic bags in the water for jellyfish due to their poor vision. The turtles proceed to eat these and then die from digestion



Every single species is suffering from the pollution humans are causing.



The green turtle is a common species nesting in Tanzania. Photo: © "Giant Green Turtle-01" by Dominic Scaglioni (CC BY 2.0), <https://www.flickr.com/photos/dominic-scaglioni/7675367032/>

problems. It is also quite common that the turtles get entangled in waste such as plastic bottles.

Pastorys argues that the present situation on Coco Beach is completely unregulated. Hence, people can do whatever they like and start up all kinds of businesses wherever they want. A lot of activities are taking place too close to the shore. He argues that creating places to dispose of waste is of high priority. Furthermore he believes that the main solution is education. People need to be educated and aware of how their behaviours are harmful to the environment and why it is important to act differently.

SAFETY

The perception of personal safety, for example the danger of being robbed at Coco Beach varies depending on who you ask. Hence, what their background is and how they are connected to Coco Beach. In general we found that people that do not regularly spend time on Coco Beach believe that it is more dangerous than the frequent beach visitors. We have not been able to find any registered data concerning the number of robberies/harassments that has occurred in the area. However, as described in Chapter 3 criminality in Dar es Salaam as a whole has increased since the 1970s. This in turn has led to the majority of houses being gated which may have further negative effects concerning criminality (Bulamile 2009 pp. 7, 185-188). In general tourists are warned to not walk along the main roads on the Msasani Peninsula, including Toure Drive, due to the fact that bag-snatching from cars have become more frequent (Embassy of Sweden 2014). We were lucky enough not to experience any criminal activity or harassment during our site visits and in general we did not feel unsafe. Several of the vendors that have their business on Coco Beach told us that certain times are more dangerous to visit the area. This includes night time and early mornings when it is dark. They also explained that muggings are very common during big events when there is a large crowd on the beach and sometimes they would get a group together to try and fight off the thieves.

¹⁰ Temu Pastory Monitoring & evaluation officer at Sea Sense, conversation 4th of April 2014.

Another safety aspect that is of large concern on Coco Beach is the fact that the majority of beach visitors do not know how to swim. Many of the visitors that enter the ocean have learned to swim by either watching other people or from a friend. There is no lifeguard stationed on the beach so when accidents do occur, the vendors renting out tubes often have to aid the person in need. Furthermore they do not have any formal training or access to first aid kit. This situation has resulted in drowning accidents on Coco Beach. However it is not clear how frequent these types of accidents are.

OPINIONS FROM BEACH VISITORS



“I feel uncomfortable on Coco Beach. I have to sit and watch my children all the time.”

Jumbe, age 40.
Human resource manager,
visiting beach with his two children.

“We learned how to swim by watching other people and then we just do the same, trying over and over again.”

Ali, Saidi, Anuari and Isa, age 10-14.



“I am scared of the water since I can’t swim.”

Gertrud, age 15.
Visiting the beach with her family.



“We come to Coco Beach on the weekends to swim, we don’t know much how to swim but we are not scared since we are familiar with this water.”

Tino and Juoma, age 19 and 20.



“No I don’t feel insecure since I have become friend with the vendors and I never bring anything valuable here. People try to talk to me but I just ignore them and continue running.”

Suzzan, age 40.

“It’s the second time I’m here and it’s very nice but I am a little scared. Because I have experienced some burglars and sexual harassments. I’m also afraid to take a swim by myself but as long as my boyfriend is here I feel safe.”

Doreen, age 20.
Nurse.



“Sometimes we help people that are not able to swim we kind of act like lifeguards. There was an accident a time ago. A woman lost her tube and a man was going to help her but he wasn’t strong enough so she (or he) died. They were far away from the beach. We do rescue people a lot of times since the waves are really strong in the evening.

I learned how to swim by myself. On Zanzibar, where I am from, you are surrounded by sea so you get used to water.

I miss security services on the beach. Sometimes the guys working here, we are around 20 people, get together and fight against the robbers.”

Mohammad, age 27.
Vendor renting tubes and swimsuits on Coco Beach.

VEGETATION

At present there is hardly any original native vegetation left along Coco Beach. Furthermore there are only a few plant species that are able to handle the harsh coastal climate with strong winds and salty sprays. Following is a list of plant species that have been identified on the project site.



Bougainvillea
Bouganville, exotic.
Native to South America.



Calotropis procera
Sodom's apple, exotic.
Native to north-western Africa.



Casuarina equisetifolia
Whistling pine, exotic.
Native to Burma, Vietnam and Australia.



Cocos nucifera
Coconut palm, exotic.
Native to South and North America.



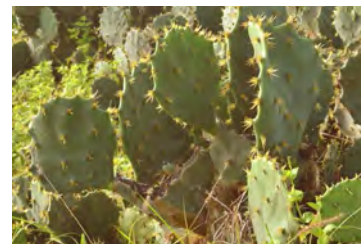
Cynodon dactylon
Grass.
Native to African savannah



Azadirachta indica
Neem tree, exotic.
Native to India and Sri Lanka.



Photo: © Linn Nilsson



Opuntia species
Prickly pear, exotic.
Native to tropical America.



Pandanus species
Pandanus palm, native.
Terminalia catappa
Almond tree.
Origin uncertain.



Photo: © Linn Nilsson

MATERIALS & EQUIPMENT

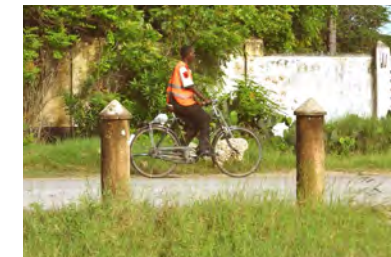
The beach is lacking equipment and facilities. The only larger construction is the restaurant and its outdoor dining area and concrete wall. Besides that we only found concrete bollards along parts of Toure Drive, a few concrete benches, one mosaic bench and some concrete constructions for grilling.



Mosaic bench.



Concrete bench.



Concrete bollards.



Grill.



Restaurant and outdoor dining.

DEVELOPING COCO BEACH

Developing Coco Beach is not an easy topic. Many stakeholders are involved and they are keen to push for their interests. Furthermore these interests tend to vary, painting different scenarios for the future of Coco Beach. Following is a description of how we understood the current conflicts and future visions for the area.

CONFLICTS BETWEEN STAKEHOLDERS

KMC & THE NATIONAL ENVIRONMENTAL MANAGEMENT COUNCIL (NEMC)

NEMC was instated in 1983 with the intention to collaborate with the different governmental agencies to create viable future city developments that do not harm the environment. The main objective is to protect, conserve and educate people about the valuable natural resources that Tanzania relies on (NEMC 2011). Since the Environmental Act (EA) was accepted in 2004 NEMC also has the final say before any development is carried out in an environmentally sensitive area. KMC is the municipality governing the Msasani Peninsula and hence the main agency in charge of maintenance and proposing future plans. The coastline is considered an environmentally sensitive area according to the EA which means that any proposals along the coast has to go through an Environmental Impact Assessment (EIA) accepted by NEMC before becoming reality. A close collaboration between KMC and NEMC would therefore benefit both parties. When interviewing the property appraiser⁴ working in the valuation department at KMC, it became clear that this is not the case, so far these two agencies have functioned independently with little or no collaboration. Furthermore this situation has led to disagreement concerning projects and discouragement for future collaboration. The appraiser tells us about the most recent development plans along the coast produced in 2010. KMC in cooperation with the Ministry of Lands conducted a design proposal for the east coast of Msasani Peninsula stretching from the Sea Cliff Hotel down to the Golden Tulip Hotel. This is an open green area that so far has not been utilized and is not as popular for recreation compared to Coco

Beach. The idea was to divide the area into six plots and let different investors provide funding to develop each of them. Furthermore, the appraiser argues that the proposals were all prepared in accordance with existing planning regulations and guidelines and approved by the Ministry of Land so a tendering process had begun. Among the proposals included a drive in cinema, a botanical garden and an open theatre. However, these plans were never realized since the EIA was not approved by NEMC. Further the appraiser explains that NEMC was complaining that KMC prepared the proposal without any consultation with them. NEMC argue that they could not approve the proposals since they believe them to be interfering with the EA. The appraiser expresses a sense of frustration concerning the situation since KMC's intentions was to improve the area and create an attractive place for recreation and tourism. While asking if the area would stay public the appraiser explains convincingly that it would, however facilities such as playgrounds and the drive in cinema should be charged. The appraiser continues by talking about inspiring places in Dubai, Qatar and South Africa and feels positive to apply these ideas in Tanzania. The appraiser believes that there are so many beaches in Tanzania but none of them are attractive to people. This is an example of the contradiction by the different regulations concerning the coast, hence the proposal was in accordance with the Land Act but not the EA and therefore rejected. Furthermore we got the impression that KMC felt that NEMC took advantage of the situation instead of collaborating and reaching a solution.

During an interview with one of the senior environmental management officers⁵ at NEMC, the lack of cooperation between the two authorities was further confirmed. Another example was described to us, referring to an occasion when KMC approved a building project without any consultation with NEMC. As previously stated, before approving any constructions an EIA has to be conducted then NEMC with the municipality should grant building permits jointly. Nevertheless the officer's impression is that since the acceptance of the EA collaboration and communication between NEMC and

the other authorities has gradually improved and is continuing to do so. While asking if NEMC has heard of any future plans that KMC might have for Coco Beach the officer⁵ claim to be unaware.

BETWEEN KMC AND THE PUBLIC

The plans proposed by KMC in 2010 generated a big dissatisfaction from the public. Although never confirmed by the municipality we got the impression that in addition to the initial six plots, at the time plans were being made to continue developing the adjacent coastline including Coco Beach. Nuru Nyerere⁶, remembers that the proposal was launched in the newspaper and caused a big outcry from the public. Nyerere's perception was that KMC tried to privatize Coco Beach by implementing chargeable amenities and the fact that Coco Beach was at risk of losing its public accessibility led to great anxiousness among its frequent visitors. Fouquet¹, also confirm the incident. Fouquet¹ remembers discussions about the proposal at that time and how he found the ideas crazy and not suitable for Coco Beach. This incident describes Coco Beach's importance among the public. People care about the beach and want it to remain public.

BETWEEN KMC, NEMC AND COCO BEACH BAR & RESTAURANT

Coco Beach Bar and Restaurant is a small scale establishment that has been in operation on the beach since 1994. KMC entered into a lease agreement with the business owner solely allowing him to renovate and improve some buildings abandoned since the 1950's. He was allowed to provide toilet facilities and a small open air bar in service for the beach visitors. However the establishment gradually started to expand. Today it consists of one big main building including bar, restaurant, kitchen, lounge, mini supermarket, barber-shop, function hall and a small office. There are also two open bars outside the building that serve grilled meat and refreshments. The company has a total of 70 employees and

¹Anton Fouquet, involved in Nipe Fagio, conversation 26th of March 2014.

⁴Property appraiser at KMC, conversation 22th of April 2014.

⁵Senior environmental management officer at NEMC, conversation 17th of April. 2014

⁶Nuru Nyerere, architect at Epitome Architects, conversation 7th of March 2014.

an average turnover estimated to 250 people per day and up to 300 people per day during festive sessions (Coco Beach Audit Report 2005). The property appraiser⁴ at KMC explains that the municipality has been involved in an ongoing conflict with the business owner ever since the lease was granted to him in 1994.

Apart from not agreeing to the lease terms regarding what he was allowed to do, the business man also ignored to pay the monthly fee for running a business on public grounds. Despite this his contract was renewed in 2003 allowing him to renovate the existing building, as long as he did not cause any disturbance to the neighbourhood and additionally still requiring him to pay a monthly fee to KMC. However the business owner continued to ignore these agreements and therefore the contract was terminated. The appraiser continues to explain that the business owner then proceeded to court and started a never-ending fight appealing against all decisions to end the contract despite his obvious ignorance of the existing terms. In 2009 KMC wanted to demolish the restaurant for new developments but it was impossible since the business owner continued to appeal and brought the case to the Supreme Court. In the meantime when these court procedures were taking place he continued to run his restaurant illegally. In a final attempt to solve the conflict KMC decided to accept the business as long as he compensates KMC. Regardless the business owner has still not paid a single coin to KMC. His contract has now expired but the business is still running illegally and KMC is helpless in the matter.

The interviewed NEMC officer⁵ also explains that they have been involved in this conflict. Since the President has declared Coco Beach as public land it should be left only for public uses and not be occupied by activities such as these. Because of this the officer finds the contract between KMC and Coco Beach Bar and Restaurant inappropriate. Further the officer⁵ claims that NEMC has required getting hold of the restaurant contract from the municipality in order to restrict the operation when the contract expires. KMC promised to send it however they never received it. Hence NEMC

would let the existing restaurant remain but prevent further development. The officer continues to describe that NEMC recently required an independent Environmental Audit Report from the business owner to investigate the environmental impact caused by the restaurant. The report also functions as a certificate or contract explaining the specific environmental conditions that the restaurant has to follow. The audit report was completed and approved in 2013. NEMC will continue to monitor the area on a yearly basis to make sure that the contract is being followed otherwise the business owner will get a penalty. One of the improvements that the business owner was supposed to implement was to keep the area surrounding the restaurant clean and provide waste bins for the visitors. During our site visits we did not notice any improvements concerning this matter.

The appraiser at KMC is aware of the Coco Beach Audit Report but claims that since the land is public and governed by the President, the business owner does not contain the rights to conduct an EIA independently without involving the municipality. Furthermore, since the audit report is conducted by the business owner himself we perceive it to be bias in favour to him and his business. For example in the report it is stated that the restaurant is supplied with a recycling station, in reality this is merely a dumpsite.

PRIVATE INVESTOR'S PERCEPTION OF LAND REGULATION

To get an understanding of how a private developer relates to coastal development and public areas we interviewed the manager⁷ of one of the larger city hotels. The hotel is situated on the Msasani Peninsula, developed along the coast. The manager claims that the hotel is legally built in accordance with all regulations. Surprisingly though he acts unaware of the land act regulation and goes so far as to doubt the existence of "the 60 meter law". The manager argues that he has never been obliged to follow this law in previous developments and he does not understand the benefits it might entail for the environment or the public. Moreover the manager

argues that as long as he has been living in Dar es Salaam it has never been a problem to get building permits. The manager says that nobody is following the rules and the government has not previously done anything about it. The manager gives an example of an eight story house that was built on Oysterbay despite the fact that only five story houses are allowed. When everything was completed the government complained and went to demolish the building. However the landowner brought the case to court and won because somebody had signed of the building contract making his development legal regardless of the regulations.

The manager agrees that Dar es Salaam is in need of a recreational park, especially one where people can feel safe. While suggesting Coco Beach as a possible area he is not convinced. The manager⁷ spontaneously argues that Coco Beach is a hopeless place and denies its popularity among the residents. The manager claims that it is just sand, trash, unsecure and unhygienic. Instead the manager strongly believes that the area between Sea Cliff Hotel and Golden Tulip would be the perfect place and he has approached KMC with his own proposal. The idea consists of a lighted running track formed into a loop with several stops for kiosks and toilets. The manager believes it is a great idea to have a measured running track; you park your car, perform your exercise along this safe lightened path that you know the exact distance of, it is exactly what people have requested on the peninsula.

VISIONS & FUTURE PLANS

During our investigation we quickly noticed that Coco Beach and the coastal areas as places for recreation is something that the inhabitants of Dar es Salaam strongly care about. The majority of people we talked to responded to our project with positivity and encouragement. In the course of our investigation we also learnt that several new proposals, from different actors were at that time in progress of being made. Following paragraphs is a description of what we could gather of these.

⁴ Property appraiser at KMC, conversation 22th of April 2014.

⁵ Senior environmental management officer at NEMC, conversation 17th of April 2014.

⁷ Hotel manager, conversation 29th of March 2014.

PROPOSAL 1

The non-governmental organization Nipe Fagio has an ongoing redevelopment project for Coco Beach. A restoration report has been compiled with the initial intention to improve aspects like environment, business and facilities. They also have the intention of creating a Beach Management Committee consisting of various stakeholders from the community and the local government to improve and support maintaining initiatives, once the park is established. Nipe Fagio wanted to approach the KMC for response and presentation of their ideas. A Norwegian landscape architect has recently joined Nipe Fagio and promised to help out with this project. To get this project started they initially wanted to collect enough money to build a stretch of the park. The idea is to show the public and possible investors the potential of the park to hopefully get funding for the remaining areas. However at the time the project was still in the investigation phase, hence no plans had been made. Furthermore, Nipe Fagio was not aware that the municipality was working on their own proposal for Coco Beach and the connecting coast.

PROPOSAL 2

KMC has entered in collaboration with the TIB to develop a new proposal for the entire east coast of the Msasani Peninsula. The initiative started in 2011 when DCC requested assistance from TIB under the arrangement of corporate social responsibility to fund a water front development. The bank agreed and work on the project began early in 2013. We got the chance to meet the director⁸ of strategic planning and corporate affairs at TIB that is in charge of this project and another co-worker the business manager⁹. To produce the proposal they have hired an architect originally from Tanzania that now works and lives in Dubai. The architect works for the agency Phill Architects & Engineers Co, Ltd., established in Korea 1995 (Phill Architects & Engineers Co, Ltd 2014). TIB choose this architect because of his experiences in city planning and involvements in architectural projects in Dubai. Furthermore the business manager argues that because the architect is Tanzanian he is familiar with Coco Beach which makes him keen to improve the area. The business manager has seen his projects in Dubai and found them very inspiring.

According to the director TIBs plans are to raise funds to build the park by opening a public trust. The director explains that there will be a legal structure with a board of members working solely with the park area. The board members will be chosen through votes, for example through advertisement in the newspapers to arrange a public voting. Hence the intention is to create the board in participation with the public. The board's main mission will be to check that the municipality is maintaining the park properly. The director believes that this kind of participation approach will help to make the beach feel more like public property. The business manager also explains that the beach will remain public however a small fee might be charged for using certain facilities and the vendors need to pay rent. The collected money could then be used for maintenance of the area.

No public participation is included in this initial design phase. Once the architect consultant has finished this first design draft it will be submitted to KMC for comments and inputs from the public and other stakeholders. The director argues that since Coco Beach is of interest to various stakeholders an official participation at this stage would result in too many complaints and probably discourage their plans. The final design draft was supposed to be done in May 2014 but it was delayed. Once this proposal is finished, the next phase includes conducting an EIA. According to the director a total budget for the entire project has not been decided. However to produce the design proposal TIB paid 5 000 USD.

EXHIBITON

During the fall of 2014 the design proposal was completed for exhibition. Unfortunately we did not have the chance to attend or have a closer look at the proposal in detail. However we have been supplied with photographs of the presented posters which gave us a rough idea of TIB and KMC's intentions. The main design consists of open lawn areas combined with more natural vegetation. These are divided by large paved plazas, beach promenades, viewing decks and trails. The poster portrays the whole east coast of the Msasani

Peninsula including Coco Beach as a premiere destination for local residents and visitors. The beach park offers a variety of amenities such as: water park, outdoor amphitheatre, playgrounds, paintball site, sport facilities, picnic places, food, beverage and retail areas as well as fountains and water features. Public art installation is also incorporated in the proposal.

⁸ Director of strategic planning & corporate affairs at TIB, conversation 25th of April 2014

⁹ Manager at the business development at TIB conversation 24th of April 2014.



CHAPTER 6 : ANALYSIS

Chapter six analyses the information obtained from the case study. It begins by discussing the human aspect through the different activities occurring on Coco Beach and if they follow any pattern or tendencies. Following, the Lynch method analyzes the areas physical structure and characteristics. The chapter is concluded by a summarizing SWOT. The analysis provides a base for the design strategy.

GEHL ANALYSES

Coco Beach is very rarely completely empty and the activities that occur there are far from monotone. The activity on Coco Beach follows a general pattern during the weekdays and weekends, with exception of special festivities.



"I come here between 4.30-6am to to run. It depends on when I am released from my work. I work as a night security guard at the airport."

Suleiman age, 32



Morning 05.00-09.00

Various people use the Coco Beach area for exercise and this mainly takes place in the morning when the temperature is cooler. The number of activities that we noted at this time included jogging/ running, people doing strength exercises such as sit-ups/push-ups and stretching movements. Both men and women were active and it was also common to see a group of people training together with a leader. Even though it is mostly common to see Africans we also noticed some other nationalities. Some of them were walking their dogs, we also saw several surfers. We experienced the beach to be very peaceful at this time of day with just a few people and we felt safe.



"I go here with a group of people on Sundays and Saturdays to jog between 6-8am. I go here alone during the weekdays to improve."

Amy, age 19



"I'm from Kenya but I have lived in Dar for 2 years. I come 3 times a week between 7.30-8.30 am for running."

Suzzan, age 40



"I come to the beach 6 days a week to do different kinds of exercise, jogging and stretching. I like Coco Beach because it's lots of space, wild environment and breeze and fresh air."

Joakim, age 24

"I'm from the United States but have lived in Dar for 3 years. I go to Coco Beach to surf. I would love the beach to stay public and to be cleaner."

Marcella, age 40



During mid-day Coco Beach is quite calm.



Day 09.00-17.00

At this time of day Coco Beach is less energetic. The main activity is located to the bigger entrances including the restaurant and the market area. It is probably likely to see at least somebody swimming and people scattered along the beach enjoying the shade underneath palm trees. Some people come during lunch with their cars to enjoy the breeze and view. The vendors that conduct their business on the beach are usually always present. The activity gradually increases as the evening approaches.



A wedding taking place on the beach.

Group of boys doing business renting out swimming rings, mainly on weekends, age 25-30



"We go here on weekends for swimming in the sea."

Group of youngsters, age 18-20

Evening 17.00-23.00

In the evening more people come to enjoy the beach and the somewhat cooler temperature. Some people exercise at this time as well. More people are swimming and sitting under the vegetation. The restaurant is a popular destination to get some food/ drinks and socialize after work.



"We go to the beach to swim, ride the bike and visit the area."

Ali, Saidi, Anuari and Isa, age-10-14



A music video is being recorded.



"I enjoy the nice weather and people around here. Me and my family spend the whole day here. Have picnic, eat and the children are playing."

Victor, age 42

Night 23.00-05.00

The area is very empty during the nighttime. We have been told that this is the most dangerous time to visit the area. One factor that adds to this is that there are no lights in the park which means that the area becomes very dark during the night. Some of the vendors sleep on the beach in order to guard their stalls.

In the evening Coco Beach fills up with lots of visitors.



"I have been doing this for two months, every week-end."

The price of riding a horse is 5000 TZS.

"I have sold ice cream at Coco Beach the previous two Sundays. It is free to sell here."

Justin, age 20



Weekend 05.00-23.00

The general activity pattern is the same on weekends however there is a higher density of people throughout the day. The climax happens on Sunday evenings when hundreds of people visit the beach, (sometimes thousands). One of the main attractions at this time is the food market which fills up with families enjoying picnics and socializing.



LYNCH ANALYSES

To understand the existing situation and structure of Coco Beach we conducted an analysis based on the Kevin Lynch method.

DISTRICTS

1. The Neighbourhood

This district is defined by the first row of houses facing Toure Drive and Coco Beach. We choose to include this area as a district since the houses are visible from the park and people are subjected to it as they leave and enter Coco Beach. The district is characterised by gated dwellings and empty streets. This produces a very monotonous feeling, no real sense of location and an impression of a deserted neighbourhood compared to the high activity on Coco Beach.

2. The Market

The Market is at present functioning as a combined food market and parking area situated in the southern part of Coco Beach. The district is characterised by its sandy soil groundcover. Toure Drive to the west and the cliffs in the east are physical barriers that define the boundary of the district. Vendors are standing in line along the cliff edge selling food in the shade of tall trees. Plastic chairs and tables are informally spread around the food market. This is an area with high activity especially during evenings and weekends. The rest of the area is used as an informal car parking which often results in traffic chaos.

3. The Beach

The beach is probably the main attraction with the highest human activity in the entire Coco Beach area, it is extremely crowded during Sundays. This district is characterised by its ground cover of fine white sand. The ocean in the east and a thick edge of vegetation in the west define the district boundary. Activities that occur are swimming, playing, different types of sports, people watching and along the beach you can find vendors renting out swimming equipment and selling refreshments. It is popular to relax in the shade of the palm trees and cactuses that lines the beach district in the west.

4. The Green Belt

Along the beach bordered by Toure Drive in the west and the sandy stretch in the east there is a green belt consisting of mixed vegetation. This district is characterised by its bushy and grassy appearance. The vegetation consists of fairly low shrubs and coconut trees and the area is mainly used as a route of transportation to other parts of Coco Beach. Informal dumping sites are hidden in the shrubberies, these areas are also used as informal toilets. The denseness of the green belt varies along the beach, in the south the visibility is very limited and these areas may be perceived as unsafe during the dark hours. The northern parts of the district have a more open character. This part is often used for informal parking and people tend to drive their cars to the district edge to be able to enjoy the view and breeze from the car.

5. The Restaurant

The restaurant district is characterised by its developed and fragmented appearance. It is bordered by Toure Drive to the east and this part also acts as the main entrance to the Coco Beach area. The east side further functions as an area to pick up and drop off people as well as for informal parking. Adjacent to the parking there is a sandy patch housing various activities and events sponsored by local telecommunication companies. The districts fragmented appearance is defined by the restaurant activity which towards the ocean consists of outdoor seating and to the north consists of various activities such as some small sheds, outdoor gym equipment and a larger dumpsite. Furthermore these activities create a vague north and south boundary and the district can be seen to have a more fluent edge towards the adjacent districts.

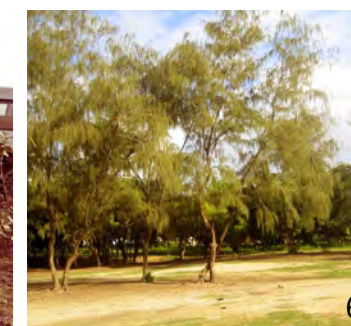
6. The Cliffs

The topography and type of vegetation are the main elements characterising the Cliff district. Toure Drive cuts of the district in the east and the steep cliffs act as a natural boundary in the west towards the ocean. In the north the district is further defined by a concrete wall separating the area from the police officers mess. The vegetation changes from dense areas of tall trees in the east to lower and more sparsely distributed shrubs towards the cliffs. The northern part of the area is more open with groundcover consisting of

grass, lower scrubs and rocky soil. At two locations the cliffs open up towards the ocean. Here the topography is lower and small strips of sand create mini beaches where people can reach the water. The main pulse of activity happens out on the cliffs, people sit in their cars or the surrounding rocky ground looking out over the ocean and people swimming.



Figure 18. Map of the different districts.



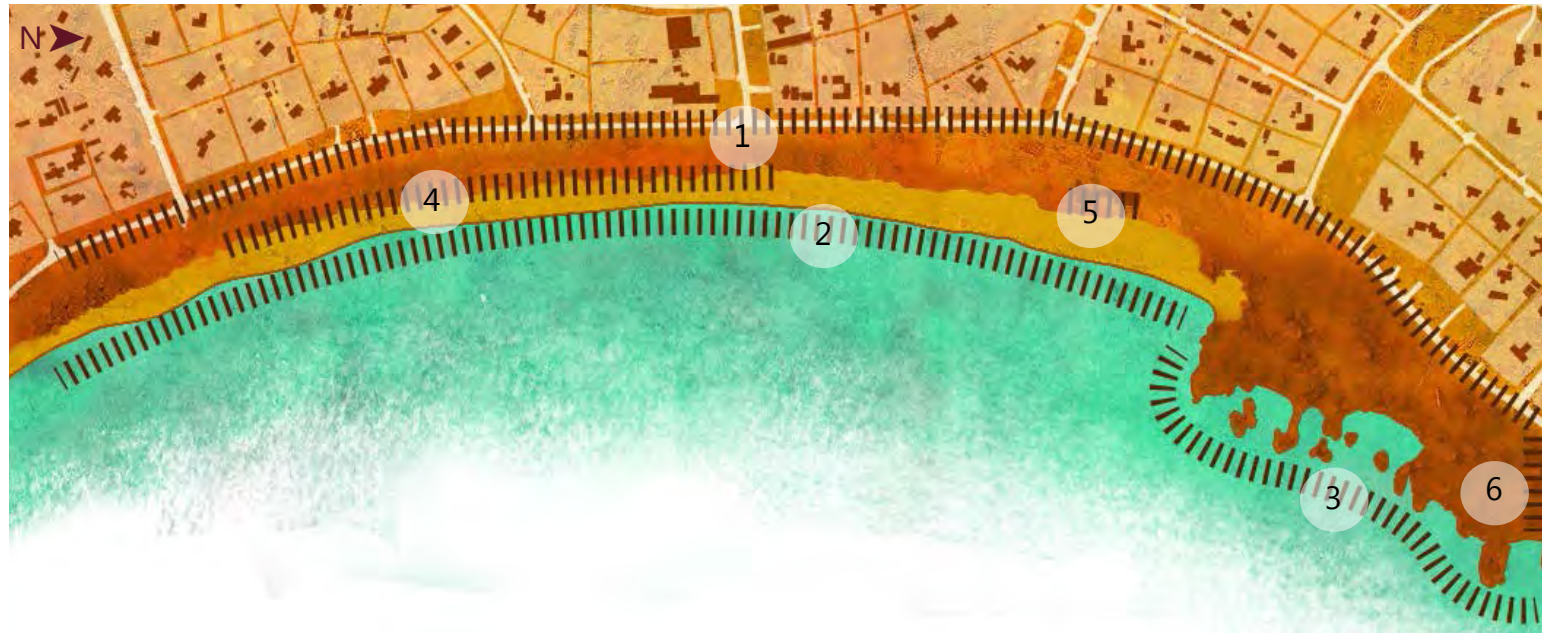


Figure 19. Map of the different edges.

EDGES

1. Toure Drive

This is one of the main roads on the peninsula. It borders all of Coco Beach on the east side. At certain times of the day it is very busy with heavy traffic and fast speeds. There are no sidewalks or zebra crosses anywhere on the road. As a consequence this road acts as a major barrier affecting the entire project site.

2. Indian Ocean

The ocean acts as a natural edge/barrier since it is not accessible to people who are unable to swim. This edge also varies throughout the day as the tide changes. Hence, during high tide certain areas become inaccessible.

3. Cliffs

The high cliffs in the north aggravates movement and connection to the ocean.

4. Vegetation

The thick invasive scrubs (mainly consisting of cactuses) forms a physical barrier preventing free movement and limiting the sight lines between the Beach and the Green Belt.

5. Restaurant

The restaurant is located very close to the shore (less than 60m), this limits the free movement of visitors along the beach. One consequence is that at high tide the ocean reaches all the way up to the restaurant retaining wall forcing people to take a detour around the building when wanting to pass.

6. Police Station

The project area is cut off in the north by the police officers mess that is surrounded by concrete walls. This completely prevents any further movement along the coastline.

7. Temporary Edges

Certain events and activities produce temporary edges under a shorter period of time. Perhaps the most frequent one is the chaotic traffic situations that occur on Sundays at the food market. Another temporary edge happens during heavy rains when parts of Coco Beach may become flooded. The large crowds of people that gather during festivals and big events such as concerts can also be regarded as a temporary edge.



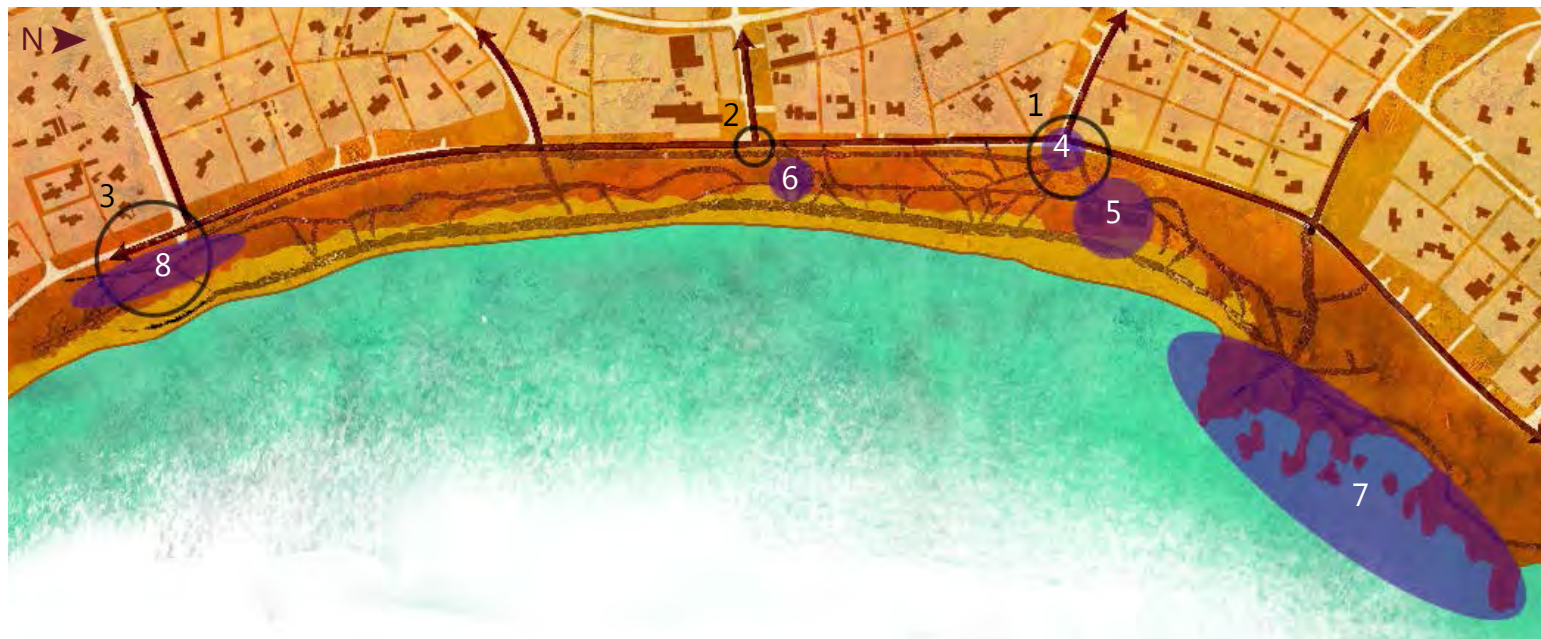


Figure 20. Map of the different nodes, landmarks and paths.

NODES

1. The Main Entrance

The sandy patch by the restaurant functions as a drop off zone. It also functions as one of the main entrances to the Coco Beach area where people meet up and continue elsewhere.

2. Middle Entrance

This is another frequently used entrance to the Coco Beach area and meeting place.

3. The Market

The Market acts as a connection point for both traffic and people. The majority of visitors park in this area. Food vendors are also lined up which increase the human activity.

LANDMARKS

4. Advertisement

The main entrance is framed by a large advertisement sign for one of the big telecommunication companies Tigo.

5. The Restaurant

This is the only restaurant within the area, consequently it is well known. Furthermore it is also the only built structure on the beach, which means that it is visible from far away.

6. Mosaic Bench

A popular element on the beach is the blue/purple wavy mosaic bench situated close to the middle entrance. It is one of the few benches that exist in the entire area. The fact that it has not been subjected to vandalism as many other structures since it was installed in 2010, clearly shows that it is appreciated.

7. The Caves

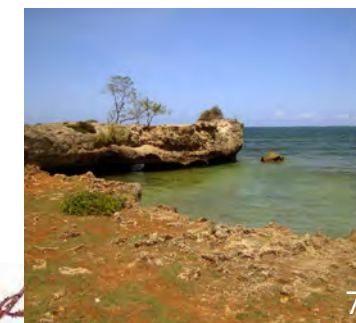
Along the cliffs there are several caves. One of these is referred to as the Lovers Cave, it is possible to enter this cave from the beach.

8. The Market

The popular market also functions as a landmark.



Informal path



PATHS

To a great extent the movements are concentrated in a north-south direction and vice versa along the whole stretch of the project site. The east-west movement is more concentrated to a few main paths. All paths are informally created and in the Green Belt it is easy to follow these since the grass has worn away showing the underlying sandy groundcover. However the shoreline can be viewed as the main walkway.

THREE CITY LEVELS

The situation on Coco Beach is far from simple, since concerns that exist within the site are intrinsically connected and governed by the greater Dar es Salaam. We perceive the situation as a hierarchy consisting of three key levels (figure 21).

- At the top there is the governance, which is the official caretaker of the land and has the power to decide how the land should be utilized. Moreover we experience the governance as very distant from the activity and people on the site and emphasizing this is the fact that people are generally not included in any part of the planning process.
- The next level consists of the city and its structure as a result of the daily activities of all Dar es Salaams inhabitants. For example these can be concerns such as waste and water management that originate in the greater city, however inevitably also has a huge impact on Coco Beach. Furthermore obviously these concerns cannot be solely solved by being addressed locally. Activities on Coco Beach may also have consequences for other parts of the city.
- Finally there is the local level concerning the actual physical limitations of Coco Beach and the sites various characteristics that cannot be found anywhere else. These resources can potentially be lost if the wrong kinds of developments are permitted or alternatively if no action is taken at all.



Figure 21. Conceptual illustration of the perceived city levels; the local (inner), the city (middle) and the government (outer).

SWOT ANALYSIS

Following is a SWOT summarizing what we believe to be the main points taken from the case study. They have been roughly divided into the three hierarchal levels (the governance level, the city level, the local level) as previously described (figure 22).



Figure 22. Explanation of SWOT division.

STRENGTHS

- The Coco Beach area is declared public by the President
- KMC wants to improve and develop the Coco Beach area for recreation and tourism. 2011 KMC teamed up with TIB to make a new proposal for Coco Beach and the connecting coast.
- EA established in 2004 states that an EIA needs to be written before any development can take place on the coast.
- NEMC has the final say and can shut down a business if the EA is not followed.

- Coco Beach is well known, extremely popular and well used. Hence it can be considered to function as a city park.
- NGO's have displayed interest to improve the area for the public benefit.

- There is no entrance fee anywhere within the area.
- Coco Beach has a strong identity and local culture.
- Coco Beach has large open areas with natural vegetation and pleasant climate.
- There is good accessibility to Toure Drive along the whole area.
- Many beach visitors feel safe.
- It is easy for anybody to start up a business on Coco Beach.
- The vendors that have their business located there feel responsibility for the area.

WEAKNESSES

- No communication between KMC and the wards.
- Laws exist but are not followed, corruption is frequent.
- Different governmental agencies have different ideas on how to develop the coast.
- No coherent design interventions have been implemented on Coco Beach. There is a lack of places to sit and get shade from the hot sun and in the evening the area lacks lighting.
- There is a general lack of facilities in the entire Coco Beach area. This includes changing rooms, toilets and showers.
- There are no security or safety services.
- The Coco Beach area is not supported by a maintenance scheme.
- The laws and regulations for vendors are not clear.

- There exists a lot of prejudice against Coco Beach among non-users.
- The whole area is littered with hazardous waste.
- Untreated water from the city is directly released into the ocean polluting the water.
- There is no sufficient public transport to the beach.
- The human activities cause degradation of nature.

- The neighbouring areas consist of private residencies and creates a very closed of empty environment.
- There is poor accessibility along the beach since there are no proper walkways.
- Crime happens at certain times of the day and during big events.
- Some areas along Coco Beach get flooded during heavy rainfall.
- The traffic situation on Toure Drive is dangerous and on the weekends the marketplace becomes chaotic.
- Invasive plant species are taking over the area and the palm trees are subject to a disease that is killing them.
- Erosion is taking place by traffic, water and wind.
- The restaurant owner on Coco Beach does not follow the lease contract and money disappears. Furthermore he does not abide to the EA.
- The local vendors act like lifeguards with no proper training.

OPPURTUNITIES

- Create a landmark for Dar es Salaam.
- Through a redevelopment of Coco Beach, create a base for better communication between the different governmental agencies, including municipality and wards.
- To collect a business and parking fee that can help maintain the area.

- To keep Coco Beach public in order to be transformed into a city park and become a meeting place for all inhabitants of Dar es Salaam including tourists and visitors.
- Create job opportunities and support the existing local business.
- To make Coco Beach a model in order to develop similar places in the rest of Dar es Salaam.
- To become a Blue Flag awarded beach.
- Improve the traffic situation and provide proper parking areas.
- Plant native plant species to increase the biodiversity and limit the spread of invasive plant species.

- Improve surroundings to become safer and nicer through proper SWM and design interventions (including facilities, paths, places to sit, shade opportunities etc.)
- Emphasize the local culture.
- Increase the vegetation on the beach to improve the microclimate and urban green structure.

THREATHS

- The public land status of Coco Beach can be changed if the government has other intentions they deem more important.
- If corruption occurs it may lead to the coastal regulations being ignored.
- The conflict between the KMC and the restaurant owner on Coco Beach may continue.
- Private investors only interested in making money, hence not interested in supporting local business and exiting culture.
- Several different investors providing funding for a new park may lead to an unconnected and bad design (e.g. advertisement).
- KMC do not intend to keep the coast entirely public.
- The public is not involved when developing the new proposal for Coco Beach.
- KMC's proposal could be very expensive and not feasible.

- A new park may lead to increased crime and vandalism.
- Increased exploitation may lead to increased vulnerability to climate extremes, erosion and flooding etc.
- The new improved Coco Beach becomes solely a place for people with higher economic status, increasing the city segregation.
- Invasive plant species may outcompete native plant species.
- Increased pollution.
- Water quality, could potentially be harmful for swimmers.
- Unknown hazardous waste gets washed up on beach from other parts of the city.

- Over utilization of the area can lead to further degradation and pollution.
- No interventions are taken, Coco Beach remains as present state or gradually becomes destroyed.
- Increased popularity of Coco Beach may lead to increased complaints from the neighbouring residents.
- The majority of the beach visitors can not swim. More drowning accidents may occur if there are no lifeguards present.
- People continue to drive on the beach causing a dangerous situation for the visitors, polluting the environment and increasing risk of erosion.



CHAPTER 7 : THE DESIGN

Chapter seven begins with a description of a sustainable beach according to the Blue Flag certification system. Followed by a presentation of our initial idea of the future Coco Beach, the four design keys a description of our design language and sources of inspiration. Further is a spread showing the whole plan and design of Coco Beach followed by 4 sections explaining each part of the park in detail and how the design keys are applied on site. These are further described through cross-sections, visualizations and detailed cut-outs from the larger plan.

A SUSTAINABLE BEACH

In order to investigate what a sustainable beach is the Blue Flag certification system has been used as a guideline and source of inspiration (see page 21). The program promotes sustainable development in freshwater and marine areas by encouraging local authorities and beach operators to achieve high standard beaches. The program is divided into four major categories, these are presented below (Blue Flag 2015).

ENVIRONMENTAL MANAGEMENT - For maintenance a beach management committee consisting of local stakeholders should be established. The committee should conduct environmental audits of the beach and co-operate with local authorities and beach operators. It is important that the beach complies with all regulations affecting the beach. The entire beach environment must be clean and maintained at all times in consideration with local flora and fauna. An adequate number of waste bins, toilets and recycling containers should be present furthermore changing rooms are preferable. At least some of these facilities should be accessible for disabled visitors. Waste water is not allowed to enter environment unthreatened. Unauthorised camping, driving and dumping is prohibited on the beach. Moreover sustainable alternative transportation such as public transport, bicycles and pedestrian walkways should be promoted around the beach area (Blue Flag 2015).

ENVIRONMENTAL EDUCATION - Environmental activities must be offered in order to increase awareness and care for the local environment. The beach should provide sustainable recreation and tourism as well as spread knowledge about the environment. Activities should focus on the environment, environmental issues, and sustainability issues. Some of them should be carried out at the beach and have direct focus on the beach environment (Blue Flag 2015).

SAFETY - The beach must be guarded and patrolled by professional lifeguards and be well equipped for accidents. The public must have access to the beach without being a client to a specific hotel or club. All structures should be in good condition and safe to access. Access and facilities provided for the physically disabled is strongly recommended (Blue Flag 2015).

WATER QUALITY - To become Blue Flag beach excellent bathing water quality is required. No more than 30 days between the samples are allowed and information about the quality should be displayed and updated regularly. No industrial, urban wastewater or sewage-related water should affect the beach (Blue Flag 2015).

DESIGN KEYS

The Coco Beach area is at present the only large public space in Dar es Salaam that functions as an area for recreation similar to a park environment. However it is not being maintained appropriately in relation to the high number of visitors each week. Furthermore up until recently no specific thought has been put into how to design it into an active beach park. If no immediate action is taken this may cause irreversible damage and make the area unsuitable for any kind of future activity.

The essence of our design is that the Coco Beach area shall remain truly public. Meeting people around the city you quickly realise that Coco Beach has a strong identity. Whether you go there or not, most people know of it and have an opinion concerning the area. In general the governmental agencies and non-users have a very different opinion than the users. Taking this into account we have chosen to put main focus on the users and how we as landscape architects perceive the situation concerning all parts involved. From this perspective we embark upon the task of how to make the area a better functioning public space from our experience.

To us this primarily meant aiming to improve and maintain qualities that make people enjoy and spend time at Coco Beach today. Moreover to incorporate the actions that needs to be taken to solve the current environmental issues and to retain a healthy future environment capable of handling continuous high usage. The design also aims to create a better integration with the rest of the city and opening up for new user groups by creating a safe and comfortable environment for all of Dar es Salaams inhabitants. Finally we hope that this may inspire to similar public spaces in other parts of the city. Based on the analysis and inspiration from the Blue Flag certification system we summarized our design objectives into four main categories; **health, nature, education and culture**.

These have acted as a guideline throughout the designing process incorporating the core issues of today and at the same time symbolising what we want the new improved Coco Beach to stand for.



HEALTH

Improve the human scale!

Coco Beach is visited by hundreds of people each week. People go there to swim, enjoy the fresh breeze, exercise, or just to enjoy a BBQ and socialise. However, current circumstances do not make this area a healthy environment, in some cases it could even be regarded as extremely dangerous. People have been known to get injured on the scattered waste on the beach and in the water, drowning accidents happen and muggings are common during big events. These are some of the reasons why certain people choose to pay an entrance fee at private beaches. We want to improve the human scale and make Coco Beach a safe and healthy environment by creating:

- A clean and pollution free environment
- A comfortable microclimate
- A safe traffic environment
- A safe environment for everybody at all hours of the day
- Accommodate for supporting facilities
- Accessibility throughout the beach park
- Opportunities for a wide range of activities
- A well maintained park



NATURE

Promote urban nature!

Tanzania is one of the most species rich countries in the world. However this is easily forgotten in the bustling urban centre of Dar es Salaam. Short term economic investments and infrastructural elements are prioritized in the city context leading to fragmentation and degradation of the existing urban green areas. Furthermore there is a lack of knowledge concerning native plant species and as a result invasive plants are spreading and taking over the natural flora. Focusing on improving and expanding the green structure not only supports the rich biodiversity it also buffers against the effects of climate change and natural disasters. We want to improve the environment by:

- Implement storm water management
- Increase vegetation
- Create shore protection against erosion
- Support biodiversity



EDUCATION

Create a platform for education!

The Coco Beach area is visited by a wide range of people from different age groups, backgrounds, different parts of the city and some people even travel from outside of Dar es Salaam just to spend some time there. Because of this we believe that Coco Beach could be a good place to act as a platform for education concerning environmental issues. Hence, simply how and why people should care about their surroundings. We want to support educational activities by providing:

- Educational safety lessons
- Possibilities to organize events
- Educational trail and informative signs
- Educational centre and exhibition hall
- Recycling stations



CULTURE

Emphasize the essence of Coco Beach!

The area of Coco Beach has an incredibly strong local identity. It is widely known by the inhabitants of Dar es Salaam, even people that do not regularly spend time there have an opinion concerning the area. Previous development attempts by KMC aimed at privatising parts of the area have got a large opposition from the public, feeling that it would no longer be "The people's beach". There is a tendency from government to think of Coco Beach as chaotic and unstructured. With this design we want to emphasize the positive properties of Coco Beach and to make the local actors stronger, help them achieve the organization that is needed from the perspective of the governmental agencies. To be able to accomplish this we want to:

- Ensure that Coco Beach remains as a public park
- Accommodate for big events
- Create social hotspots
- Limit the amount of permanent buildings
- Use local materials
- Create design elements used to emphasize identity
- Support and improve the local businesses
- Integrate with the rest of Dar es Salaam

DESIGN LANGUAGE

The final design is a result of everything that we have experienced and learned while working on this thesis. However along the way there have been a few processes and elements that have had an extra strong impact on us, inspired, helped the work forward and provided the core of the design language and the beach park identity.

The shores of Dar es Salaam are strongly influenced by the rhythm of the ocean. Gravitational forces extended by the moon, sun and rotation of the earth causes the water to rise in high tide and fall to low tide twice every day. In Dar es Salaam the difference between high and low tide is several meters, this affects the beach environment both visually and structurally. Hence during low tide the waves leave temporary patterns in the sand, displaying seaweed and rocks that are hidden during high tide. With time this process may also contribute to more permanent changes such as beach erosion, displaying that this is a dynamic environment, never at rest. The natural rhythm of the ocean also forces people on the beach to act in a certain way at certain times by limiting their movement and types of activity.

The fact that this process is so prominent, but at the same time such a natural part of the beach environment that we may not be consciously aware of how it affects our senses, has inspired us. The organic shapes created by the ocean waves can be read throughout the structures in the park and the way in which the different areas merge into each other. Furthermore symbolizing the fact that we want the park to be dynamic and constantly changing and growing, with different activities, new events, new meetings, vegetation, natural processes and new ways to perceive and view our environment etc.

PALMS

The name Coco Beach naturally generates associations to the coconut palm tree, *Cocos nucifera*. There have always been plenty of palm trees on Coco Beach creating a symbol for the area. Perhaps also connecting back to the colonial times when coconut plantations were common in the area. However recently a disease affecting this species has spread and killed numerous of the trees on Coco Beach and there are only a few healthy palm trees left (Perkin¹¹). We felt that the palm tree is so strongly connected to the area and the identity that we wanted to enhance and keep this element in our design. The coconut palm is mixed up with other species to avoid creating a monoculture and future spread of disease.

BENCH

Located in the middle of the sandy stretch of Coco Beach there is a set of four wavelike mosaic structures. These are incredibly popular and apart from being used as benches, people use them as sun shelter, as vantage points and a place to meet or source of direction. This art was placed there in the spring of 2010, a project initiated by an artist from the Netherlands, Arienne Mahieu, that was living in Dar es Salaam at that time. Mahieu's main aim was to bring art to the public. She meant that in Tanzania art is often viewed as an abstract concept, a luxury that can only be seen in galleries or museums, something that requires money. However through public art this perspective can change, public art is a part of everyday life, melting into the landscape and is there for anybody who wants to notice it. It can create a sense of place, ownership and community. Mahieu believes that it prompts the viewer to question, to react, to understand and to reflect, inspiring us to think new thoughts to reflect and open our minds to new possibilities (Mahieu 2010).

The four mosaic structures were made in collaboration with numerous of local artists. They were placed on Coco Beach with permission from KMC and the project was funded by the Dutch embassy.

¹¹Andrew Perkin, involved in TFCG conversation 2th of April 2014.



On the side of each bench there is a poem inscribed inspired by the Indian Ocean.

Maisha kama wimbi –Life is like a wave

Katika bahari yahindi-In the Indian Ocean

Elimu kama bahari-Seeing wisdom in the sea

Habari zake ni nyingi- Swelling with stories of all

Together these poems make up a fifth poem which tells the story of a wave growing to its full potential (Mahieu 2010). We have gained a lot of inspiration from this project. People have warned us for the high vandalism risk on Coco Beach, therefore we find it especially amazing that these mosaic structures have stood on site for 4 years without being vandalized or in any way destroyed, truly showing that people have taken this art to heart, respect and appreciate it. Furthermore to us this stresses the need of similar places on Coco Beach, places where people can gather, sit and get some shelter from the sun.



LOCAL MATERIALS

It was important to keep the essence of Tanzanian beach culture in our design. Following are various elements and materials commonly found on beaches and in the city that we have taken inspiration from and adapted into our design language; Tanga Stone, coconut wood, concrete pavers, coral-stone and thatched roofs.



Parasols.



Wooden furniture and thatched roofs.



Tanga Stone.



Concrete pavers.



Coral stone stairs.

COLOUR PALETTE

The colour schemes we have chosen in our design is a combination of strong saturated colours blended with natural more neutral tones. This is a reflection of our perception from the beach environment. Hence the warm earthy gold sand, turquoise blue waters and the activity from the colourful Tanzanian culture present on Coco Beach in everything from the beach visitors fabric patterns to their social, positive and open attitude towards life.





THE DESIGN

This spread displays the entire design proposal for the Coco Beach Park. The area stretches 2 kilometres in length, approximately 50 to 250 meters in width and rises in topography towards the north. A line of palm trees borders Coco Beach towards Toure Drive and connects the entire park area.

The park is divided into four bigger areas that differ in character and are focused on different activities. The initial idea was to start from today's situation and improve existing qualities to create a well anchored design. Identified characters have been enhanced and the beach has been supplied with previously missing features. Furthermore the design is adapted for the high usage of today by providing facilities and room for all kind of activities. Following is a brief summary of each part in the order of south to north.

THE MARKET

The Market is an area mainly characterized by its bustling food market which becomes a lively hotspot during the weekend and a design that gives the place the sense of a city square. The intention is to create a popular and comfortable place for families provided by seating's, toilet facilities, public playground and car park.

THE BEACH PARK

One of the major purposes of the Beach Park is to prevent further erosion of the area. The Beach Park consists of two areas that differ in character; The Garden is a lush and visually attractive park with a high variety of plant species. By creating a design based on vegetation zones that gradually goes from hardy to sensitive a wide range of species could be used at the same time as erosion is prevented. The Palm Park is a more sandy dessert like park with plants that originally thrive in coastal environments. To help prevent erosion a retaining wall is constructed towards the beach.

A combined mosaic bench and succulent plantation is stretching throughout the entire beach park. Apart from providing seating opportunities it is also a work of art and functions as a barrier towards Toure Drive.



Scale 1:2000/330mm x 927mm



WC

WC

WC

P

Recycling

TOURE DRIVE

Multifunctional event area

P

P

THE EVENT AREA

Life guard

THE EVENT AREA

This area houses big events. It is provided by large parking areas and one of them could easily be turned into a place for concerts. Coco Beach Restaurant is also located within this area but now with a public walkway along its outdoor dining area. Close to the restaurant entrance there the traffic circulation has been turned into an organised drop of zone and recycling station.

THE FOREST

This part is the most vegetated one of them all. It is inspired by the coastal forests that originally covered Coco Beach. It is also functioning as a base for education and exercise.

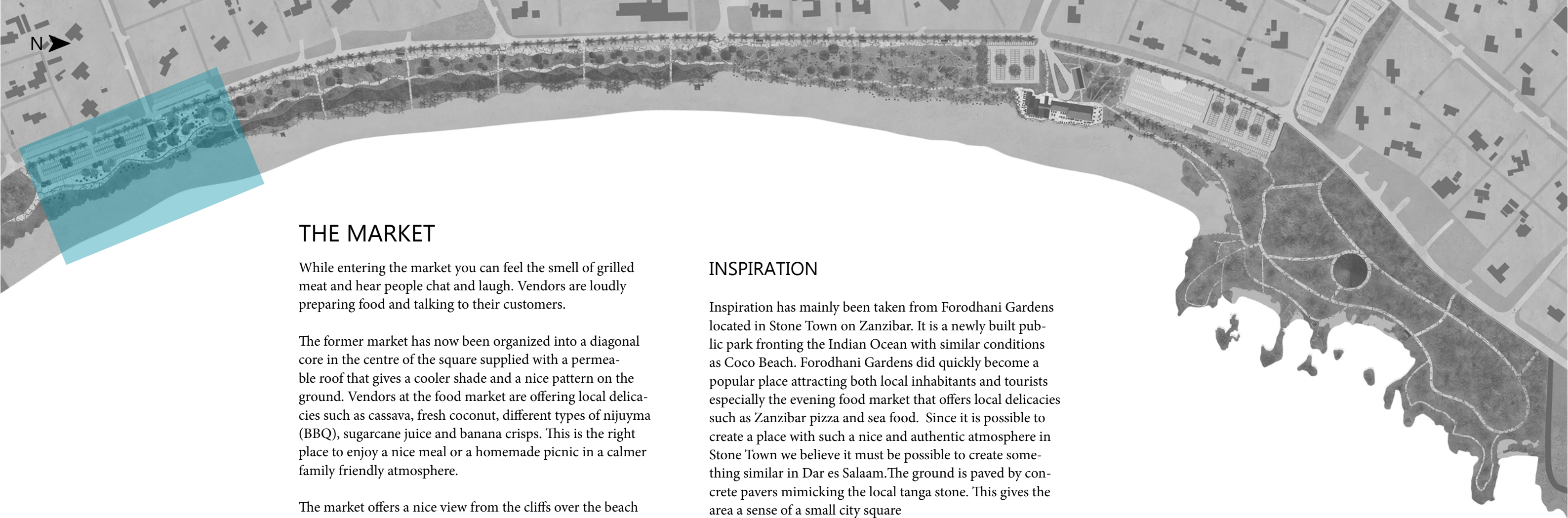
Education Centre WC

Gym

THE FOREST

Life guard

TOURE DRIVE



THE MARKET

While entering the market you can feel the smell of grilled meat and hear people chat and laugh. Vendors are loudly preparing food and talking to their customers.

The former market has now been organized into a diagonal core in the centre of the square supplied with a permeable roof that gives a cooler shade and a nice pattern on the ground. Vendors at the food market are offering local delicacies such as cassava, fresh coconut, different types of nijuyma (BBQ), sugarcane juice and banana crisps. This is the right place to enjoy a nice meal or a homemade picnic in a calmer family friendly atmosphere.

The market offers a nice view from the cliffs over the beach and ocean. There are plenty of places to sit, either on benches in the shade of tree plantings or underneath traditional Tanzanian thatched parasols with room for the entire family. It is also possible to grab something to eat and easily move along further to the beach. A public playground is located adjacent to the market supplied with playground equipment inspired by the Tanzanian marine wildlife

On a busy Sunday evening the market turns into a more vibrant social hub. It is a nice place to spend the last free hours of the weekend enjoying the sunset and the convivial atmosphere.



Daytime in Forodhani gardens.



INSPIRATION

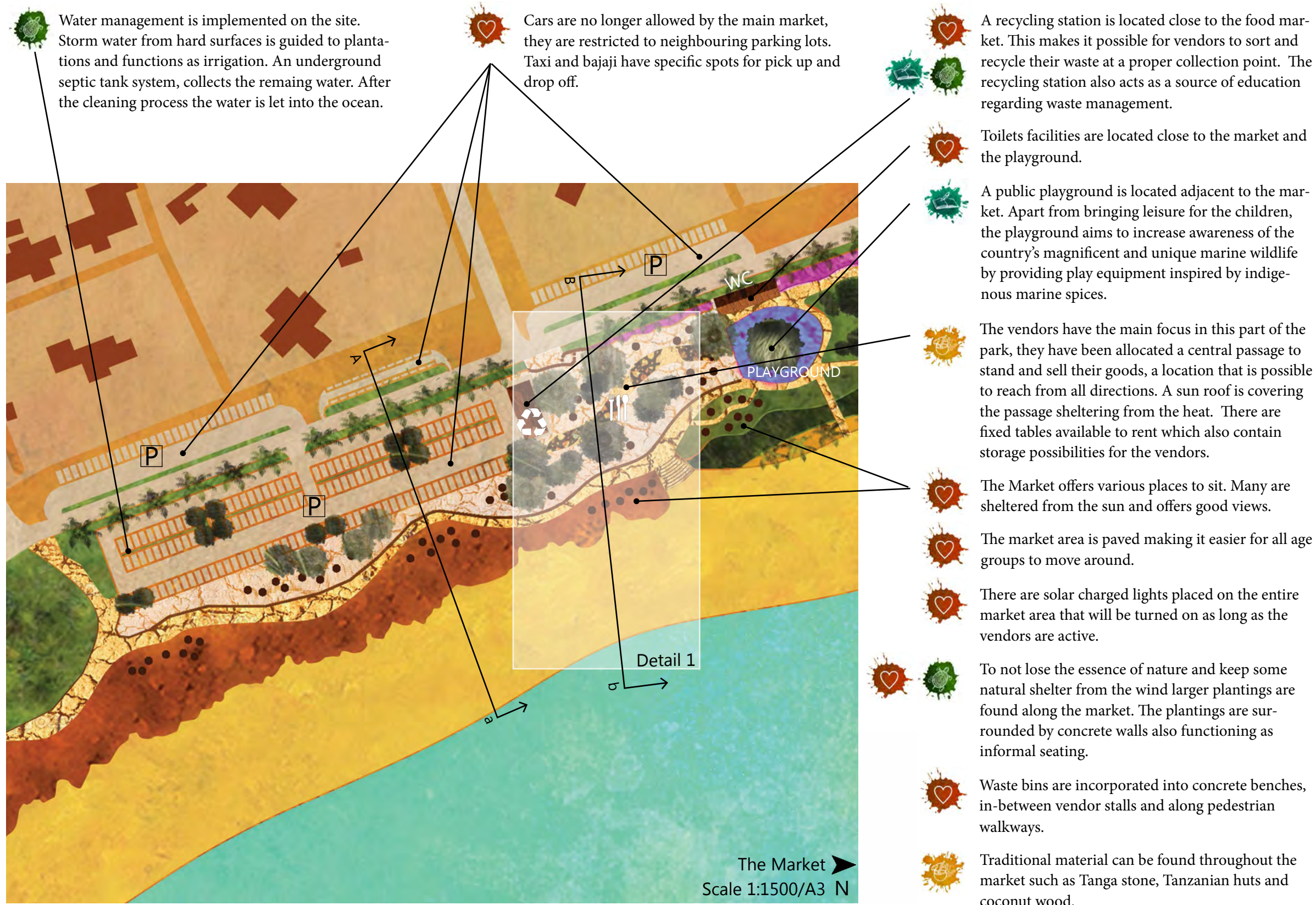
Inspiration has mainly been taken from Forodhani Gardens located in Stone Town on Zanzibar. It is a newly built public park fronting the Indian Ocean with similar conditions as Coco Beach. Forodhani Gardens did quickly become a popular place attracting both local inhabitants and tourists especially the evening food market that offers local delicacies such as Zanzibar pizza and sea food. Since it is possible to create a place with such a nice and authentic atmosphere in Stone Town we believe it must be possible to create something similar in Dar es Salaam. The ground is paved by concrete pavers mimicking the local tanga stone. This gives the area a sense of a small city square



Chef cooking the local delicacy Zanzibar pizza.



The night market is bustling with life in Forodhani gardens.







The Food Market,
Scale 1:200/A3, Cross Section: B-b

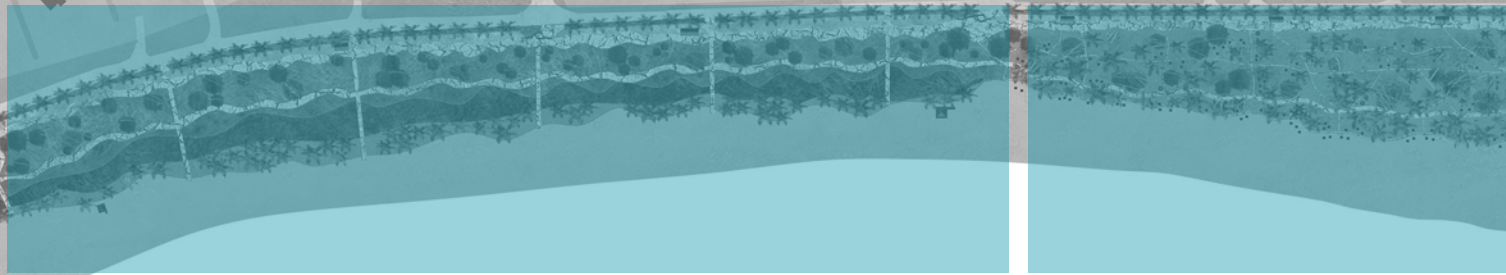


The Market Parking Area,
Scale 1:200/A3, Cross Section: A-a





Evening sunset at the food market, people are socialising and buying local delicacies from the vendors.



THE BEACH PARK

The Beach Park has turned into a park environment with a comfortable microclimate suitable for longer visits or just park strolling. There are two main paved pathways going through the entire park which are crossed by paths leading down to the beach and up to Toure Drive. To prevent unauthorized vehicles to enter the park, bollards are blocking the entrances creating smaller gaps for pedestrians. From the road to the beach there is a height difference of about 4 meters that is taken up by a retaining wall. The walls run along the entire Beach Park in order to prevent erosion and help stabilize plant beds and the park ground. The large beach stretch has been supplied with more palm trees and parasols, a perfect place to sunbath, swim and play in the sand. Life-guard stations with trained personnel and first aid kits are located along the beach to decrease the number of accidents. Solar panel lights could be found throughout the whole area lighting up the dark evenings.

The Beach Park is divided into two types of character; the lush and leafy Garden and the dry and sandy Palm Park. These will be described further in this chapter.



THE MOSAIC WAVE

One of the main features of the Beach Park is the mosaic covered bench that runs throughout the entire stretch of the park. The main sources of inspiration for the bench is the existing popular wavy bench but also Gaudi's mosaic bench in Parc Güell, Barcelona. The organic movement and shape is however a symbolisation of the ocean waves. The colour of the mosaics is shifting as you move along the park and creates a sense of direction as well as acting as symbolic landmark pointing out different entrances. Additionally copies of the original bench have been spread out in the Palm Park. The bench construction is combined with a succulent plantation that also acts as a sturdy barrier towards the traffic on Toure Drive.













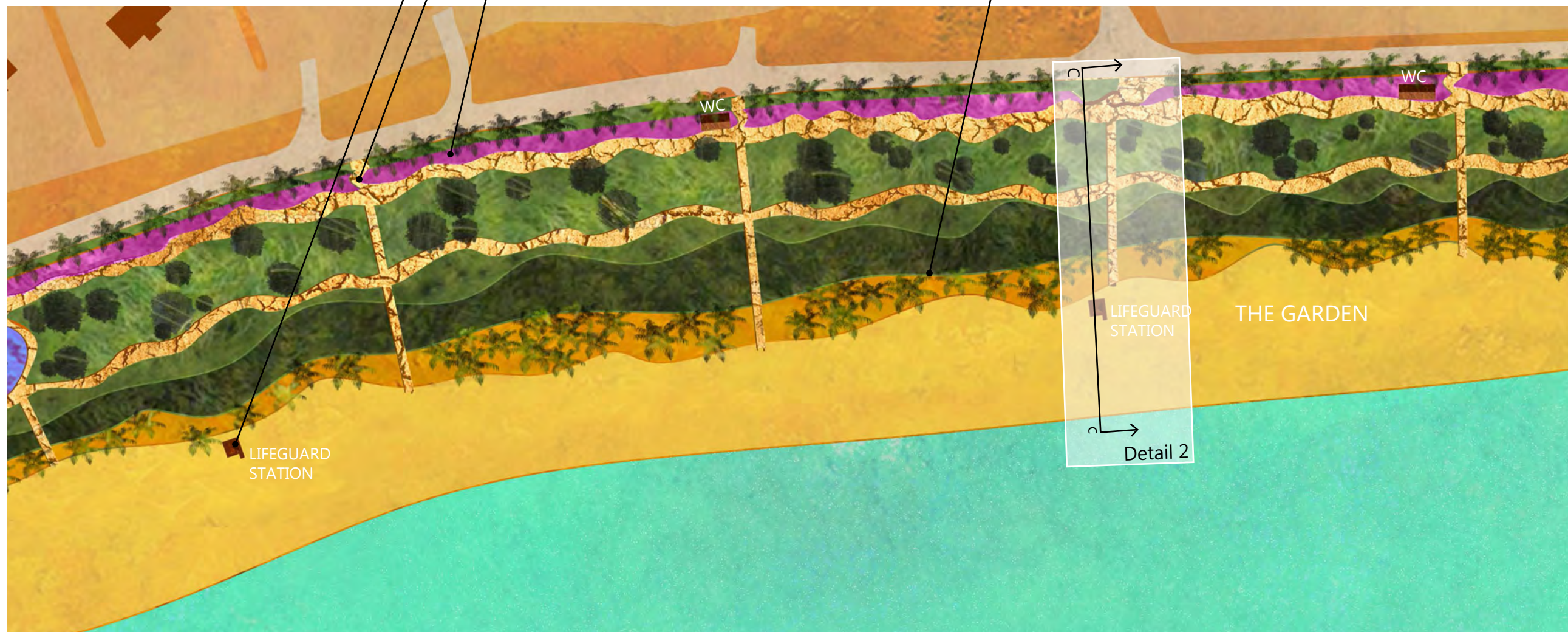
The Gaudi's mosaic bench in Parc Güell, Barcelona has been a source of inspiration.

Photos: © "Benches at Park Guell by Antonio Gaudi" by Alex Proimos (CC BY-NC 2.0), <https://www.flickr.com/photos/proimos/4209976058/>.



The Garden offers a more traditional park environment in close vicinity to the sandy beach. The area provides various places to sit along the mosaic bench or in the grass underneath one of the large trees. This area also allows people to walk along the entire Coco Beach Park in a nice shaded microclimate.

-  The vegetation creates a good microclimate.
-  No motor vehicles are permitted in the beach park area.
-  Two paved paths lead through the beach park connecting to adjoining areas, creating a good accessibility.
-  Solar charged lights are located along the main walkways.
-  Beach guard station and watch huts are placed along the beach.
-  The mosaic bench works as a barrier against the traffic and all entrances are enforced with pillars preventing smaller vehicles such as bajajis and motorcycles to enter.
-  Mosaic wall with incorporated bench runs along the stretch of the Beach Park creating various seating opportunities. Concrete benches are also located under trees.
-  The five vegetation zones promotes urban near nature and the coastal biodiversity.
-  Increasing vegetation helps to stabilize the earth and prevents erosion.
-  A retaining wall is incorporated between zone 1 and zone 2 to prevent against erosion.





At certain times of the year collected storm water can be used for irrigation in the beach park. Hence contributing to lower the maintenance cost.



The walkway system counteracts excessive usage and degradation of the vegetation.



Possibility to hold regular swim and safety lessons at the beach life-guard stations.



As many native plant species as possible will be reintroduced into the plantations.



Extra space is allocated along the beach retaining wall for vendors to continue their business and have a more permanent and structured business.



Waste bins are located along the main walkways and along the beach retaining wall, to prevent unnecessary littering.

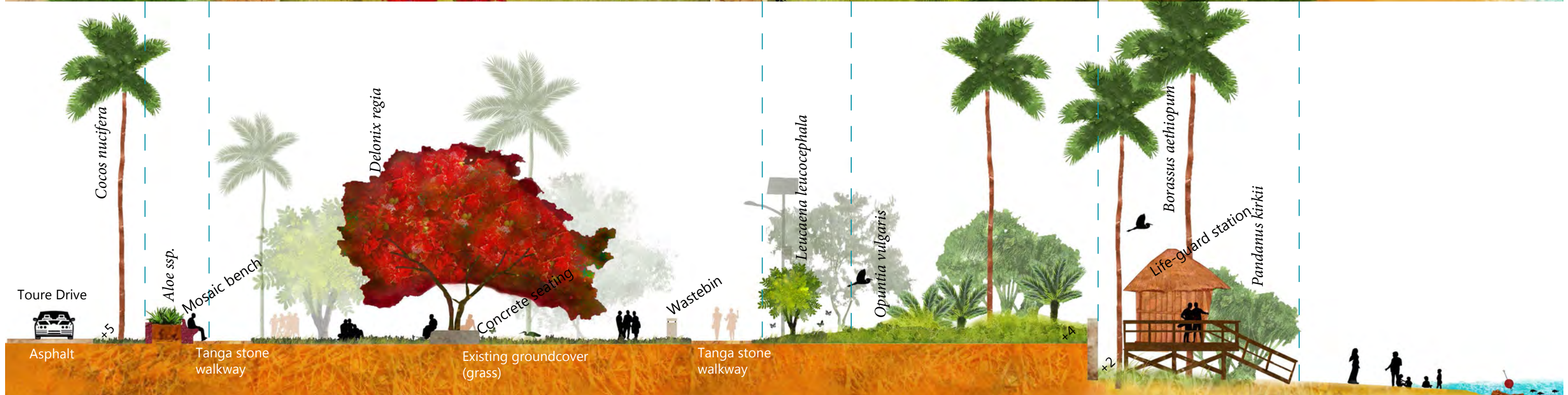


Toilet stations can be found close to the entrances, changing rooms are also spread out at several places.



Local artists will get the opportunity to work with parts of the mosaic wall, promoting local culture and public art.





The Garden
Scale 1:200/A3, Cross Section: C-c

THE GARDEN

The Garden is the perfect place to enjoy a wander or a comfortable nap underneath the tree crowns. The area offers a wide range of spectacular trees and shrubs, many of the species offer a fantastic blossom attracting butterflies and insects. Large multifunctional grass areas are also present inviting to spontaneous activities such as sports, games or picnic. There are many places to sit, formal and informal choices are available. The mosaic bench offers a lot of seats throughout the whole Beach Park, concrete circular benches are constructed around tree trunks creating a sheltered place to recover. The grass areas and retaining walls could also be used as seats but in a more informal way. Toilet facilities and waste bins are located along the walkways.

VEGETATION ZONES

Vegetation is important to provide a comfortable microclimate and to stabilize the earth preventing erosion. To be able to offer a greener and more diverse range of plant species the Garden is divided into five vegetative zones ranging from the sandy beach up towards Toure Drive.

ZONE 1, ZONE 2 and **ZONE 3** consist of hardier plant species that are known to thrive in the beach environment. These zones create a relatively dense vegetation that functions as a protecting barrier against the wind and salty sprays. Additionally, these zones provide a microclimate suitable for a more open environment and a wider range of plant species in the inner beach zone. Hence in **ZONE 4** larger tree species that provide more shade and flowering species can be added. **ZONE 5** consists of a rock garden incorporated into the mosaic bench that stretches throughout the whole length of the beach park. This zone acts as a barrier towards the road and together with the line of palm trees it accentuates the border of the park. Here a wide variety of succulent plants and other species thriving in hot climate can be found. Together the five vegetative zones create a diverse and exciting experience for the beach visitor that change as you move along the different zones and throughout the year. Furthermore these zones highlight the different areas of the park and create a sense of East to West direction.

PLANT LIST VEGETATION ZONES

Following is a list of suitable species for the different vegetation zones.

Zone 1

<i>Borassus aethiopum</i>	Palm tree, 25m	Native
<i>Casuarina equisetifolia</i>	Airy foliage tree, 6-35m	Native
<i>Cocos nucifera</i>	Palm tree, 30m	Exotic
<i>Pandanus kirkii</i>	Multi-stemmed palm tree, 20m	Native
<i>Pandanus utilis</i>	Multi-stemmed palm tree, 20m	Exotic
<i>Terminalia catappa</i>	White flowering almond tree 35m	Exotic



Cocos nucifera



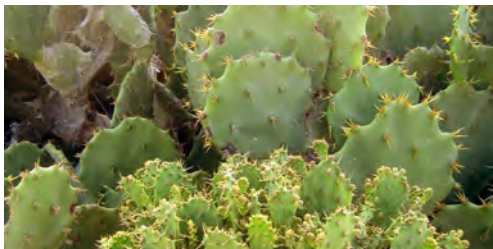
Casuarina equisetifolia



Pandanus

Zone 2

<i>Azadirachta indica</i>	Fast growing small-leafy tree 15-20m	Exotic
<i>Casuarina equisetifolia</i>	Airy foliage tree, 6-35m	Native
<i>Hymphaene compressa</i>	Palm tree, 10-20m	Native
<i>Opuntia vulgaris</i>	Extensive flat stemmed cactus, 4m	Exotic
<i>Tarchonanthus camphorates</i>	White flowering bush, 6m	Native



Opuntia vulgaris



Azadirachta indica Photo: © Maria Ignatieva

Zone 3

<i>Anacardium occidentale</i>	Cashew tree, leathery foliage 10-12m	Exotic
<i>Bougainvillea</i>	Pink purple flowering vine, shrub or tree	Exotic
<i>Calotropis procera</i>	Thick leafed shrub, purple flowers	Native
<i>Cassia abbreviate</i>	Yellow flowering tree 10-20m	Native
<i>Commiphora africana</i>	Deciduous tree, green fruits 5m	Native
<i>Encephalartos hildebrandtii</i>	Shrub with glossy stiff leafs 6m	Native
<i>Euphotbia bussei</i>	Succulent tree	Native
var. <i>Kibwezensis</i>		
<i>Euphorbia candilabrum</i>	Succulent tree	Native
<i>Hibiscus rosa sinensis</i>	Red flowering shrub or tree, 2.5-5m	Native
<i>Leucaena leucocephala</i>	Small fast growing shrub, white flowers	Exotic
<i>Schinus molle</i>	Horizontal spread tree, pepper-like fruits	Exotic
<i>Tamarindus indica</i>	Dense foliage tree, edible fruits 12-18m	Native



Bougainvillea



Calotropis procera



Hibiscus rosa sinensis

Zone 4

<i>Cassia abbreviate</i>	Yellow flowering tree 10-20m	Native
<i>Casuarina equisetifolia</i>	Airy foliage tree, 6-35m	Native
<i>Delonix regia</i>	Red flowering tree, 5m	Exotic
<i>Encephalartos hildebrandtii</i>	Shrub with glossy stiff leafs 6m	Native
<i>Ficus benjamina</i>	Glossy leafed tree, bird attracting fruits 30m	Exotic
<i>Ficus elastic</i>	Tree with broad shiny leafs, 30m	Exotic
<i>Hibiscus schizopetalus</i>	Red to pink flowered shrub, 3m	Native
<i>Hibiscus rosa sinensis</i>	Red flowering shrub or tree, 2.5-5m	Native
<i>Lantana camara</i>	Small flowering shrub forming thickets 2m	Exotic
<i>Mangifera indica</i>	Large mango tree, up to 30m	Exotic
<i>Phoenix reclinata</i>	Multi-stemmed palm tree, 15m	Exotic
<i>Plumeria rubra</i>	Red to pink flowering small tree 4m	Exotic
<i>Senna biflora</i>	Yellow flowering tree	Exotic
<i>Senna siamea</i>	Yellow flowering tree	Exotic
<i>Tamarindus indicia</i>	Dense foliage tree, edible fruits 12-18m	Native
<i>Terminalia catappa</i>	White flowering almond tree, 35m	Exotic



Terminalia catappa



Delonix regia Photo: © Maria Ignatieva



Plumeria



Plumeria

Zone 5

<i>Adenium obesum</i>	Red to pink flowering succulent shrub, 1-3m	Exotic
<i>Aloe species</i>	Succulent plant	Native
<i>Euphotbia bussei</i>	Succulent tree	Native
<i>var. Kibwezensis</i>		
<i>Euphotbia candelabrum</i>	Succulent tree	Native
<i>Euphorbia robecchii</i>	Succulent plant	Native
<i>Kalanchoe humilis</i>	Small succulent plant	Native



Euphorbia robecchii



Adenium obesum



Aloe

The Palm Park offers traditional beach fun. This is one of the best places to sit and watch the activities happening on the beach. Parents can easily watch their children playing in the sand/ocean while sitting comfortably at the picnic tables or mosaic benches.

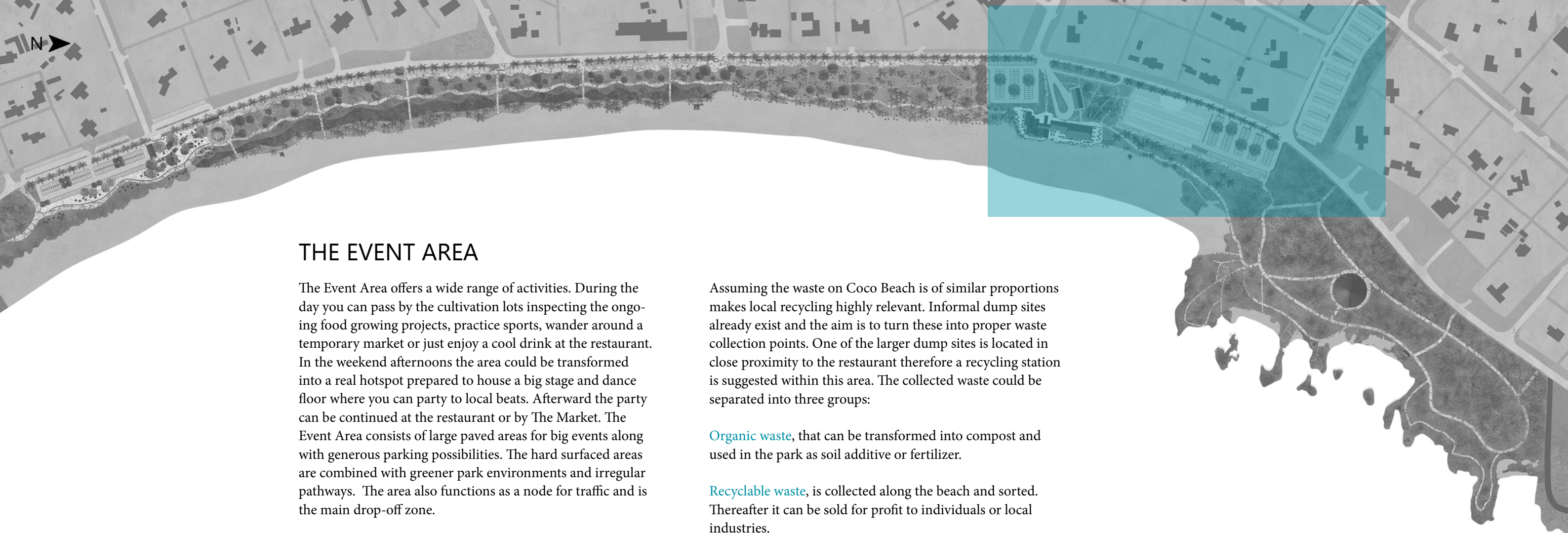


THE PALM PARK

The Palm Park is a little less dense than the Garden. The ground is mostly left in its original state. Several shrubs, pine and palm trees have been added to help stabilise the ground and improve the microclimate. Changing rooms in typical Tanzanian hut style are spread around the park. The Palm Park is also well supplied with facilities such as toilets, benches and table sets for picnic. A concrete retaining wall combined with a walkway runs along the entire stretch. Vendors renting bath equipment are able to line up along the wall underneath Tanzanian huts.



The Palm Park
Scale 1:200/A3, Cross Section: D-d



THE EVENT AREA

The Event Area offers a wide range of activities. During the day you can pass by the cultivation lots inspecting the ongoing food growing projects, practice sports, wander around a temporary market or just enjoy a cool drink at the restaurant. In the weekend afternoons the area could be transformed into a real hotspot prepared to house a big stage and dance floor where you can party to local beats. Afterward the party can be continued at the restaurant or by The Market. The Event Area consists of large paved areas for big events along with generous parking possibilities. The hard surfaced areas are combined with greener park environments and irregular pathways. The area also functions as a node for traffic and is the main drop-off zone.

RECYCLING

One of the main ideas for the Event Area is to keep a high focus on recycling. Several studies regarding waste produced in Dar es Salaam have been done and according to Breeze (2012) a large number of the household waste could be recycled. Donor studies have concluded that the Dar es Salaam household waste consist of approximately 40% organics, 16% plastics, 10% yard waste, 8% paper, metals 5% and ceramics/stone about 6% of the total (Breeze 2012). The World Bank report states that only about 18% of this generated waste is recovered from the waste stream and 5% is recycled. Moreover this is mainly carried out by waste pickers that search through collection and dump sites for the current marketable materials that they then sell directly or through middle men to manufacturers such as the Bakhresa group-Azam (Breeze 2012).

Assuming the waste on Coco Beach is of similar proportions makes local recycling highly relevant. Informal dump sites already exist and the aim is to turn these into proper waste collection points. One of the larger dump sites is located in close proximity to the restaurant therefore a recycling station is suggested within this area. The collected waste could be separated into three groups:

Organic waste, that can be transformed into compost and used in the park as soil additive or fertilizer.

Recyclable waste, is collected along the beach and sorted. Thereafter it can be sold for profit to individuals or local industries.

Residual waste, is collected and temporarily stored until it can be transported to the landfill.



The organic matter from the recycling station will be used in the park. Close to the restaurant, cultivation lots can be found. This provides an opportunity for people to engage in urban gardening and shows how these activities can benefit the community.

A specific bajaji parking spot have been incorporated separating bajajis from the public parking spots and turning zone.

A recycling station is located close to the restaurant. That makes it possible for the restaurant staff to sort and recycle waste at a proper collection point. The recycling station also acts as a source of education. This is enforced through an adjoining area to grow vegetable and plants by using the soil obtained from the compost.

A turning zone has been incorporated for larger trucks picking up material from the recycling station and trucks bringing goods to the restaurant.

Beach visitors have the possibility to avoid traffic while entering the area. A walled walkway leads straight to the restaurant entrance connecting to the walkways leading to other parts of the park.

Seating possiblilities exist under shadowing trees in the pick up area.

Toilets can be found in the restaurant.

Accessibility is improved in the restaurant area. It is now easy for non-costumers to pass along the beach on the paved path. Stairs lead down to the beach at several places.

The retaining wall ouside the restaurant is enforced and improved to help prevent further erosion.

Waste bins are located in the restaurant and along pathways.





The area has a large multifunctional area where it is possible to carry out concerts or cultural happenings.



It is possible to gain natural gas from the decentralized water management system which can be used for cooking in the restaurant.



Cars are allocated to specific parking areas.



Solar charged lamps lights up the area during dark hours.



As much as possible of the present vegetation is kept.



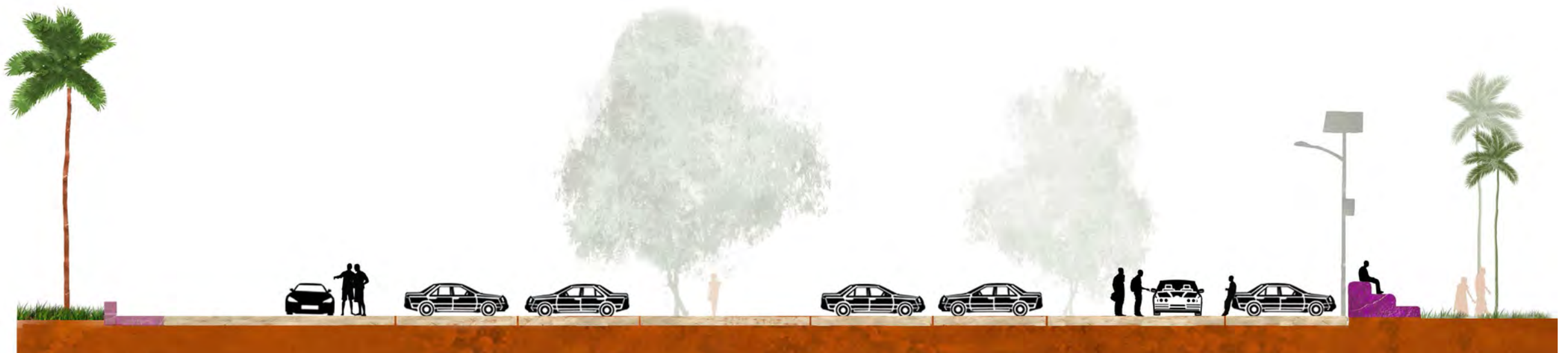
Water management is implemented on the site. Storm water from parking areas is lead to an underground septic tank system and to the plantings for irrigation. After passing through the cleaning process the water is let out in the ocean.



Market & Sport



Concert & Dancefloor



Car Park

The Event Area
Scale 1:200/A3, Cross Section: E-e

MULTIFUNCTIONALITY

To be able to cope with the high number of visitors four larger parking areas has been incorporated in the design. One of the car parks is left as a large multipurpose flexible area to accommodate for big music events during public holidays and other special occasions. The area could also be used for sport performance or other types of events. Furthermore the car parks are surrounded by walls to prevent traffic from entering the rest of the park area.

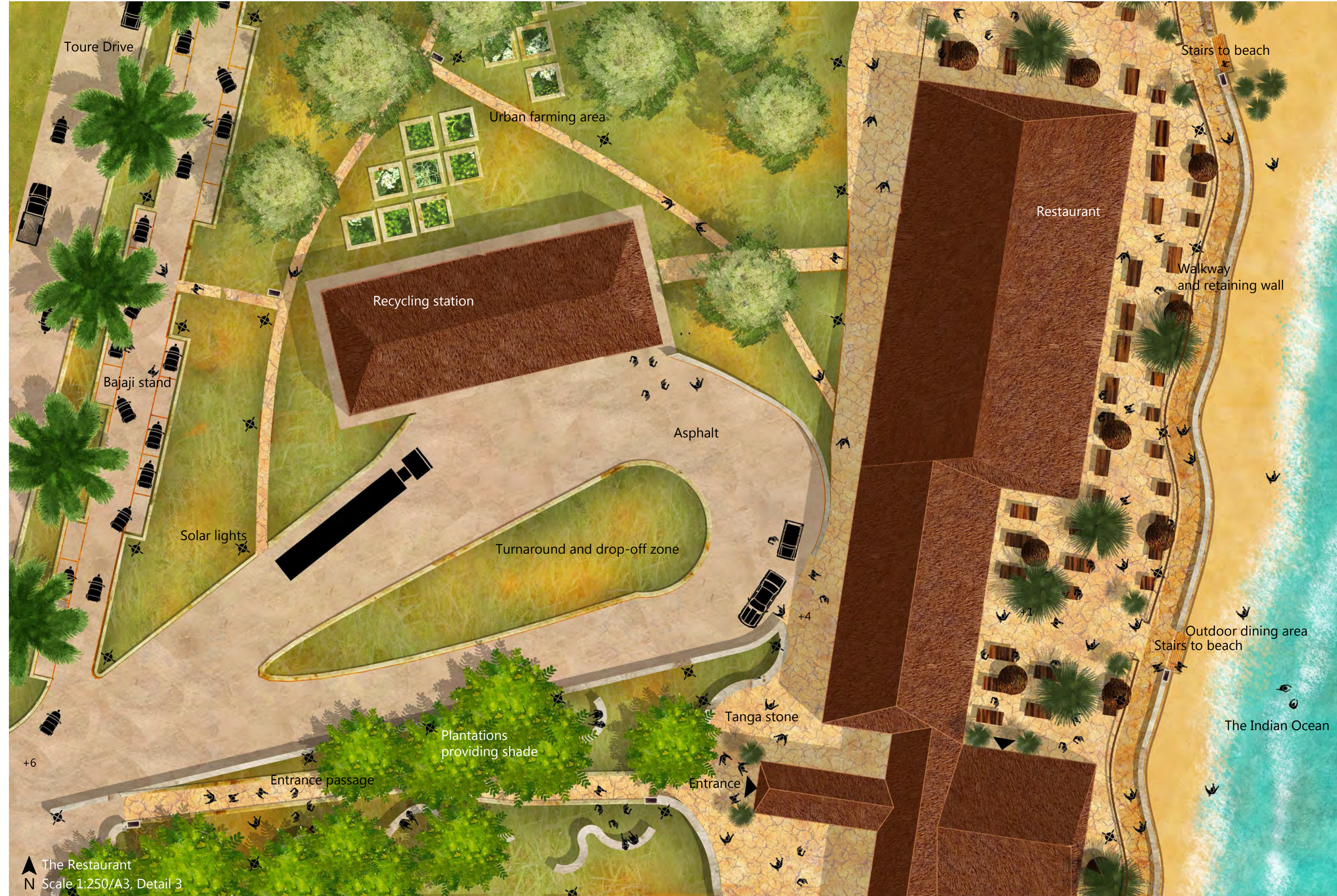
THE RESTAURANT

The restaurant building will remain as present. However the condition of the outdoor dining area has been improved and paved by tanga stone. Furthermore a public walkway has been added along the outdoor dining area which makes it possible to pass the restaurant on the ocean side even during high tides.

The area in front of the restaurant is designed into an organised drop-off zone. To prevent chaotic traffic situations bajajis has been allocated to a specific collection point and a turning zone leads the traffic flow into one direction. Outside the restaurant entrance there are a couple of benches that preferable could be used for people waiting to be picked up.



The Restaurant
Scale 1:200/A3, Cross Section: F-f





THE FOREST

The Forest is the northern part of Coco Beach, it consist of a larger green area with tall trees and lower shrubs. The area is almost kept in its existing condition. However the Forest is improved by proper pathways, facilities and additional vegetation. The vegetation is gradually shifting from dense to more sparse towards the ocean. The Forest offers good possibilities for walking and jogging either in the more dense vegetated part or the more open part by the ocean. Connected to the main loop road is a smaller path that runs along the impressive cliffs. There are seating possibilities along the path for those who want a break and enjoy the ocean view and the cool breeze.

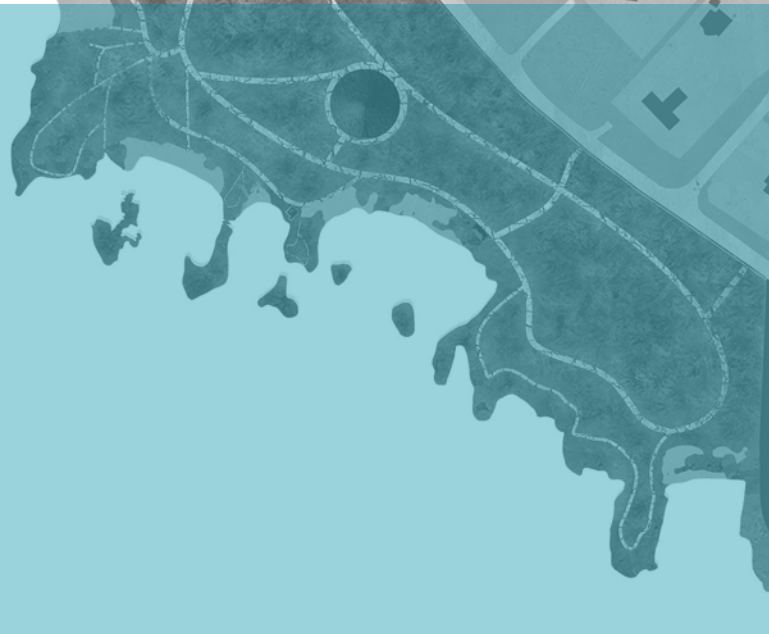
EXERCISING

The comfortable microclimate makes The Forest a perfect place for exercising. A measured running track creates a loop connecting to several shortcuts and crossing paths. There are also smaller paths running along the cliffs. This creates a net-

work of gravel paths covering the whole area. While jogging around the loop it is possible to stop by the outdoor gym to do some work out and enjoy the cool breeze and fantastic ocean view.

EDUCATIONAL CENTRE

Situated in the middle of The Forest is the Coco Beach Educational Centre and Exhibition Hall consisting of a hall and open air theatre. The intention is that the educational centre shall function as a main hub for activities such as interactive projects involving school classes, gathering point for educational trails as well as attracting tourists. The exhibition hall is constructed in a typical Tanzanian hut style with thatched roof to connect to local building traditions. It creates opportunities to spread knowledge about the coastal environment surrounding Coco Beach. It is also possible to hold outdoor lessons and lectures by the theatre. Toilet and seating facilities are available in the area.



The Educational Centre
Scale 1:800/A3, Cross Section: G-g



This area includes an Educational centre with adjoining outside lecture theatre. There it is possible to hold exhibitions or special events involving school classes in a fun and interactive way.

Life-guard station is located close to the ocean.

Traditional materials are used. The educational center has a typical Tanzanian beach hut style.

Traditional beach huts are located along the cliffs close to the caves and smaller beaches. They provide shelter from the sun.

Waste bins are located along the main pathways.

Toilet facilities are located in the education centre.

Solar charged lights are located on the main walkway along the cliffs.

Educational trails with informative signs and different themes will be incorporated into this area of the park.

Along the cliff walkway an outdoor gym is located. There are also tracks through the forest marked out with designated distances for running. The forest environment creates a more comfortable microclimate for exercise.

Motor vehicles are kept out of the area through concrete bollards.

By incorporating more defined pathways on the cliffs erosion and degeneration of the area caused by spontaneous movements may be prevented.

As much as possible of the present vegetation is kept.

The Forest
Scale 1:1500/A3 N



The outdoor gym is a nice stop on the jogging tour, offering a cool breeze and beautiful ocean view.

Coco Beach Education Centre and Exhibition Hall is situated in the middle of the forest connected to the pathway loop. This is a new meeting point and main hub for educational activities, it is a perfect place to arrange events and invite to outdoor lectures. There are plenty of seats, picnic tables and toilets.







CHAPTER 8 : DISCUSSION

Chapter eight is a reflection over our entire project and discussion of our results. It begins with a brief review of the source of interest leading to our main objective and research question, furthermore why we believe this to be of importance. The chapter continues to argue against the problems that we find with the existing proposal produced by TIB. Thereafter the different parts of our research and the various aspects of our design are discussed. Finally there is a list of what we believe to be good ideas for continued research.

DISCUSSION OF THESIS

Our intention with this master thesis was to turn Coco Beach into a well-functioning public beach that could act as a guideline for further development along Dar es Salaams coast.

Writing a master thesis concerning beach recreation might seem trivial or superficial in a country where the majority of the population is struggling to survive the day. However, conversely one might argue that it is precisely in these emerging mega cities that public spaces are needed the most and play an incredibly important role for peoples living conditions and improved welfare. Dar es Salaam is growing exponentially fast and the rapid urbanisation has caused a loss of urban vegetation and open areas in the city. The urban spread has resulted in a dense city core that lacks high quality recreational space and urban greenery (Mng'ong'o 2004 p. 6). During our field work Coco Beach was repeatedly confirmed as an important place in people's lives. Perceived to us as a public property and refuge from the bustling city we understood the vitality of Coco Beach and the relevance of our topic.

Even though there is general interest in developing Coco Beach as a public park among governmental authorities and private developers the definition of "public" is not always the same as our definition. As Swedish landscape architect students we define public as a place completely free of charge that is available for everyone to use. The developers at KMC argue that a place that is free to enter but consists of chargeable facilities could still be defined as public. Evidently we have different points of references. However this is exactly what is threatening Coco Beach today, to become a public park with charged facilities. We are concerned that KMC and TIBs proposal turns to a certain user group with higher economic resources and in doing so excluding the majority of Dar es Salaams inhabitants, or at least limiting the public accessibility of the coast. Furthermore there is a possibility that many of today's beach visitors will no longer feel comfortable on Coco Beach. This makes our topic even more significant, since we strongly believe that public areas should be a human right irrespective of income, gender or origin.

The responsible developers of Coco Beach had their design ambition inspired by landscape architecture in Dubai, Qatar and South Africa. It seems to be a general trend around the

world to create advanced and spectacular landscapes in order to attract tourists and express status and welfare. However in this process the real needs are forgotten by not creating a site specific design that takes nature and local conditions into account where users are the centre of attention. For example in the current KMC and TIB proposal a water park, and various water features are suggested. In a city where fresh water is a scarcity this to us is highly unsustainable. Furthermore along the whole park the plan consist of large open areas of lawn, which require a high level of maintenance and also frequent watering.

COCO BEACH AS PART OF A LARGER CONTEXT

Tanzania and Dar es Salaam is located far away from Sweden on a continent that was entirely new to us. In order to grasp our project site we needed to understand the big picture of both Dar es Salaam and Tanzania. It was a great challenge on such a short period of time grasping a foreign country with conditions, climate and culture unlike ours and set in a context unlike the one we are trained to work with.

Our background chapter might be considered as unreasonably extensive but it was important to not only look at Coco Beach as a single unit but part of a larger city context. Therefore we had to investigate Dar es Salaam as a whole and compile the most important facts that we found connected to Coco Beach and of main relevance to our project. This was crucial to be able to create a realistic and anchored design. For example it is not feasible to suggest flush toilets without knowing if water access and treatment is possible on site and waste bins will not take care of the waste problems if it is not collected etc. With our design these issues are addressed to the extension that was possible for us with the project time limitation and knowledge that we have.

It is obvious that Dar es Salaam is strongly marked by its colonial past and segregation is still very palpable. This was something we experienced while travelling around the city's different districts. Since Coco Beach is situated within a district historically dedicated to expatriates this aspect needed to be taken into account. Prejudice and fear towards Coco Beach already exist among non-users and it is difficult

to know what reaction our proposal would cause among neighbouring residents. To create a proposal that encourage increased activity may cause complaints from neighbours. However our ambition is to prepare for a high usage and organise the area to prevent chaotic and unsafe situations. We believe that a well organised, safe and beautiful park eventually would attract the population on the peninsula and function as a beach park for everyone despite origin or socioeconomic affiliation.

DISCUSSION OF RESULTS

The project area is divided into four different parts, a structure based on the results from the Lynch analysis. We perceived Coco Beach to consist of different areas in terms of character, by keeping, enhancing and integrating these areas into our design a diverse park environment was achieved.

To make it easier to understand and explain our design aspirations the results from the analyses was sorted into four major categories; Health, Nature, Education and Culture. These are the design keys that have guided us to the right solutions. Following is a discussion of our results based on these four keys.

HEALTH - IMPROVE THE HUMAN SCALE!

The most visible factor implicating on health and security was the amount of solid waste scattered along the beach. This fact was both astonishing and frightening to us and could not be ignored throughout the project. Even though SWM strategies are implemented on Coco Beach the results are highly dependent on KMC's ability to collect and dump the waste. The dependence of KMC makes it difficult for us to guarantee a place free from pollution. However the design creates a good base for SWM that hopefully influences and simplifies the city process.

In Sweden accessibility is a compulsory part of any public developments. In Tanzania disabled people struggle to move around the city and wheelchairs are uncommon. Regardless we wanted to strive to create a place that is as accessible as possible. Paths are paved and slopes are gentle to achieve easy access by wheelchairs, bicycles and trolleys. However ac-

cessing the beach is a problem since it is left in its originally sandy groundcover. Although there are nice viewpoints from the pathways, so the beach and ocean can be enjoyed from a distance.

Organising the traffic was important to achieve a safe environment. We hope that our bench and wall construction should be strong enough to keep vehicles outside the area. To create such a large mosaic feature might be expensive but on the other hand it contributes to a nice environment and gives Coco Beach a strong identity as well as serve as a piece of public art. The construction and erection of the wall will also create job opportunities for local craftsmen. Moreover appreciated features are less likely to be destroyed whilst ordinary concrete bollards often are mown down.

One of the larger parking areas is located outside the Coco Beach area. According to KMC's existing property ownership map (KMC 2011, p. 17) it is declared as public land and our hope is that KMC would agree with our suggestion in order to relieve and minimize parking areas on Coco Beach. However it could be problematic to construct parking lots along Toure Drive since that land is privately owned. Nevertheless people are parking their cars in these areas today regardless of it being legal or not and will continue to do so. The informal parking causes an unsafe situation along the road and deterioration of the groundcover. Therefore we believe that organised parking lots would be a better solution for everyone.

Another contributor towards a safer environment is lightening during dark hours. Even though solar charged lights and patrolling safety guards may create a sense of safety, security is still not guaranteed. Burglars and harassments may occur. However, attracting more people may contribute to a safer park by having more watchful eyes present. Several of the beach vendors told us that they are not afraid to intervene if needed.

NATURE - PROMOTE URBAN NATURE!

Increased vegetation was a given design solution from the start since it can contribute to plant diversity and cooler microclimate. Unfortunately it has been difficult to use only native plant species since exotic plants species have been

introduced and they are gradually replacing the natural flora (Mng'ongo, 2004, p. 36). Furthermore the harsh climate on the coast further limited our options. The suggested plants need to be hardy and survive in dry sandy grounds and resist strong saline winds. Although we strived to use as much native plants as possible or at least plants originating from the East Africa we had to suggest exotic plants as well. To be able to improve the microclimate, spatial pleasure and prevent monoculture we felt this decision necessary. The exotic species are commonly found around Dar es Salaam, two of them being more invasive than the others. The first one is *Opuntia vulgaris*, an American cactus widely spread along the beach today. We have chosen to keep some of the cactuses since they will help prevent erosion and they stabilize the ground as well as function as a barrier towards the ocean winds. The second one is *Azadirachta indica* also known as Neem, originating from India. Neem trees and bushes are widely spread around Dar es Salaam, it is a very leafy green tree that gives a soft shade. *Opuntia vulgaris* is only suggested in the second zone in the Beach Park whilst *Azadirachta indica* is suggested on several places throughout the whole park. Because of the plants invasive tendencies park maintainers need to control the spread continuously.

EDUCATION - CREATE A PLATFORM FOR EDUCATION!

Education is the most important tool for any environmental improvements to be achieved. Hence, to make people understand the consequences of their action, will hopefully make them motivated to engage. To encourage education on Coco Beach we have created opportunities for a wide range of activities. Organised exhibitions will be held at the education centre and the recycling stations are interactive tools that spread knowledge about waste management and recycling. Furthermore we hope that NGOs and school classes would want to engage and arrange events. We believe that Coco Beach it the perfect place for reaching out to lots of people and functioning as a platform for education.

CULTURE - EMPHASIZE THE ESSENCE OF COCO BEACH!

As a newcomer to Dar es Salaam we might be able to see

things with fresh eyes, however it is also possible that we misinterpret certain cultural features and traditions. To really identify the essence of Coco Beach it has been crucial to spend as much time as possible on the site and keep our eyes and ears open. Conversations with the beach visitors and Tanzanians in general have played a key role to understand this culture. The Market and concerts are in particular vibrant hotspots symbolising the beach culture. In our design we thought it was important to enhance them without losing the current atmosphere. Therefore today's activities and vendors will remain on site but in a more organised and upgraded way. The Market will be provided by sturdy tables for retailing and a sheltering roof. Vendors will be able to store their equipment inside the tables and to avoid disputes among vendors a renting scheme could be set up. Concerts are allocated to the flexible car park at the Event Area. We suggest these arrangements to end around 6.00 pm in respect of neighbours. Local material will also help to keep Tanzanian flavour at the same time encourage national trade and business. Our hope is that Coco Beach also will become a popular destination for tourists where authentic culture, beach life and leisure could be experienced.

Essential to preserve the spirit of Coco Beach is to let the beach remain public. It is impossible for us to make that decision but it has been our philosophy throughout the whole project. Further we hope that local authorities will be inspired and become aware of the benefits from a public Coco Beach.

THE RESTAURANT

The conflict that is taking place regarding the Coco Beach Bar and Restaurant and KMC has been very confusing to understand and to know who to rely on. However we chose to keep the restaurant since it is a situation out of our control and the restaurant is very popular among the beach visitors. The building is situated within 60 meters from the ocean, which according to the present regulations is not allowed on public land (Government of Tanzania 2004). To try and compensate for this we have integrated a public walkway along the restaurant on the ocean side making it possible for people to pass it easily. We also hope that NEMC will do checkups on the business and push the owner to take responsibility for his predicted duties concerning the waste that his business produces.

MAINTENANCE, BUDGET AND CORRUPTION

Within this project we have chosen to not address the topic of budget. However we are aware that such a large park project would obviously be expensive to realise and would most likely rely on outside funding. One way to reduce the initial cost in the next phase of implementation could be to construct the park through different stages, using as much local workforce and materials as possible. Another possibility is to seek funds from investors. A successful example that has inspired us in our project is Forodhani Gardens in Stone Town, Zanzibar. This is a seaside park that was rehabilitated by the Aga Khan Trust for Culture. However there is always a risk when involving outside investors that they have certain conditions that may change the original design and concept or in the case of Coco Beach case the park gets privatized.

The maintenance of the park is another great concern. Once the park is built it is important to have enough funds to be able to uphold it in the same condition and to make sure that all the facilities are taken care off. One idea to support the maintenance funds is to collect a small daily fee from the beach vendors and to collect a fee from the parking. Measures should also be taken to make sure that the restaurant owner pays the contract fee. At present there are several waste pickers that rummage the beach for recyclable material that they can sell to the big manufacturers. Perhaps these could be hired to work for the park, be in charge of the recycling stations and communication with the external municipality waste collectors.

With this kind of system there is always a risk that the administration may become corrupted. Hence money will disappear in the wrong hands and not the cause of maintaining the park. Therefore it is especially important to come up with a good strategy on how this could be avoided

TIB suggested assembling an outside board separate from the governmental agencies, which only focuses on the maintenance and correct administration of the Coco Beach Park. Perhaps this is as good solution to overcome the problem of corruption. However we believe that it is very important to make sure that the people on the board are locally engaged on Coco Beach and feel a strong connection to it.

RELIABLE REFERENCES

During our research we have tried to use scientific articles and peer-reviewed literature as much as possible. However due to difficulties to access information online parts of our thesis are based on oral sources and hard copies that may be difficult to get hold of for further reading. Dependent on oral sources we had the chance to take part of many different opinions and stories. It was sometimes difficult to know what opinion to rely on and what story to believe. It was important to value the facts and create our own version based on the different sources. Many had opinions on what the future of Coco Beach should be like. We decided in an early stage to focus on the users. The result should have been completely different if we had chosen to focus on the perspective of the KMC.

Another aspect that we lacked during this project is good local reference projects, instead we sought inspiration from street life, private beaches and Zanzibar beaches.

PERSONAL REFLECTIONS

Five years of university studies together with helpful people and supervisors have made this project possible. Doing a master thesis in a developing country has been a great learning experience that we definitely encourage other students to do. It was a great opportunity for sharing knowledge and enriched our skills within landscape architecture. However grasping a country from scratch involves challenges, including language barriers, different time perceptions, and difficulties to get hold of information and people. This was challenging to us and required engagement, patience and a flexible mind, also forcing us to integrate a lot more with people than we are used to in Sweden. Furthermore we have learned not to be afraid to think of new innovative ways to solve problems or to attempt something that we previously knew nothing about.

Nevertheless we managed to carry out our initial idea and interact as much as possible with the community of Dar es Salaam. The warm, welcoming and outgoing attitude among people in Dar es Salaam made it easy for us to integrate. Governmental staff, NGOs and students from ARU embraced us with helpfulness and curiosity.

FUTURE RESEARCH

- Further development of adjacent areas to Coco Beach in order to create a coherent park environment along the east coast of the Msasani Peninsula.
- Mapping the whole coast of Dar es Salaam and documenting exactly what is public and private. Furthermore to conduct an overall development scheme suggesting solutions for improved public access to beaches.
- During our inventory we found several coastal sites that could serve as interesting topics for future landscape architecture projects e.g. Ocean Road, Palm Beach and a large green area adjacent to Kawe Beach.
- Furthermore the rivers are interesting environments to investigate since they are subject to informal settlements, illegal waste dumping and annual flooding events.

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APPENDIX 1

Following is a list of interview question asked to users and vendors of Coco Beach.

SAMPLE INTERVIEW QUESTIONS FOR BEACH USERS

Name?
Age?
Where do you live?
Profession?

Do you visit Coco Beach often, if so why?
What do you like most?
Is there something you do not like?
What do you usually do on the beach?
Is there something you miss at Coco Beach?
Do you ever feel insecure, if so why?
How do you get to the beach?
What do you do when you need to go to the bathroom?

SAMPLE INTREVIW QUESTIONS FOR VENDORS AT COCO BEACH

Name?
Age?

What business do you do and for how long?
Do you pay a fee for working here?
What is the price of you service?
Is there something that would make your working day easier?
What do you do with the waste produced from your business?
Have you ever experienced anything threateningly on the beach?
Do you ever get affected by flooding?
What do you do when you need to go to the bathroom?

APPENDIX 2

Following is a list describing the different agencies that we have visited.

GOVERNMENTAL AGENCIES

The Ministry of Lands, Housing and Human Settlements Development

The agency is responsible for ensuring efficient administration and sustainable management of the land resource in the country. They implement land policy, undertake physical planning, register land transactions, undertake land surveys and mapping, land adjudication and settlement, land valuation and administration of public and community land (The Ministry of Lands, Housing and Human Settlements Development 2014)

Kinondoni Municipal Council

The municipality that is responsible for the physical planning and overall development for the part of Dar es Salaam city where The Coco Beach area is located (KMC 2014).

National Environmental Management Council (NEMC)

NEMC was established in 1983. With the objective and purpose to undertake environmental enforcement, compliance, review and monitor environmental impact statements, research and awareness raising. (NEMC 2011)

Tanzanian Investment Bank (TIB)

TIB is a government-owned development bank. It is the first development finance institution established by the government of Tanzania (TIB 2014).

NON GOVERNMENTAL AGENCIES

Nipe Fagio

Nipe Fagio is a Tanzanian based public advocacy organization. Their fundamental mission is to serve as a forum for

people and organizations interested in facilitating and promoting sustainable development initiatives in Tanzania (Nipe Fagio 2014)

Sea Sense

Sea Sense main objective is to conserve endangered marine species . They do this by working closely with the Tanzanian coastal communities. They have recruited over 60 conservation officers in coastal villages that promote conservation and work as a link between the community and Sea Sense (Sea Sense 2014)

Tanzania Forest Conservation Group (TFCG)

Established in 1985 TFCG is the largest NGO agency in Tanzania focusing on conserving and restoring the biodiversity of globally important forests in Tanzania (TFCG 2009).

Bremen Overseas Research and Developmental Association Southern Africa/SADC, BORDA

BORDA is a specialist organization established in 1977, Bremen (Germany)active in the fields of poverty alleviation, sustainable protection of natural resources and the strengthening of social structures. BORDAs main slogan is “Improved Sanitation for All”. They work with decentralized systems of sanitation, such as wastewater and solid waste disposal to improve the living conditions of disadvantaged communities (BORDA 2015).

WASTEdar

WASTEdar is an organization specialized towards waste management and recycling. Their mission is to design programmes concerning proper waste management in order to encourage social, economic and environmental development in Dar es Salaam and Tanzania (WASTEdar 2014a).

PRIVATE ACTORS

Epitome Architects Limited

An architect firm situated in the city centre of Dar es Salaam. Their aim is to be the leading provider of eco-friendly, value added architectural solutions (Epitome Architects Limited 2011).

Design Solutions

An architect firm established in 2005, situated in the Mikocheni district of Dar es Salaam. They work with projects concerning Architecture, Landscape architecture, Interior design and Planning (DESIGN SOLUTIONS 2014).

APPENDIX 3

Bellow is the 33 criteria's that needs to be fulfilled in order to become a Blue Flag beach (Blue Flag 2015).

ENVIRONMENTAL EDUCATION AND INFORMATION

- Information about the Blue Flag must be displayed.
- Environmental education activities must be offered and promoted to beach users.
- Information about bathing water quality must be displayed.
- Information relating to local eco-systems and environmental phenomena must be displayed.
- A map of the beach indicating different facilities must be displayed.
- A code of conduct that reflects appropriate laws governing the use of the beach and surrounding areas must be displayed.

WATER QUALITY

- The beach must fully comply with the water quality sampling and frequency requirements.
- The beach must fully comply with the standards and requirements for water quality analysis.
- No industrial, waste-water or sewage-related discharges should affect the beach area.
- The beach must comply with the Blue Flag requirements for the microbiological parameter faecal coli bacteria (E.coli) and intestinal enterococci/streptococci.
- The beach must comply with the Blue Flag requirements for physical and chemical parameters.

ENVIRONMENTAL MANGEMENT

- The local authority/beach operator should establish a beach management committee.
- The local authority/beach operator must comply with all regulations affecting the location and operation of the beach.
- Sensitive area management.

- The beach must be clean.
- Algae vegetation or natural debris should be left on the beach.
- Waste disposal bins/containers must be available at the beach in adequate numbers and they must be regularly maintained.
- Facilities for the separation of recyclable waste materials should be available at the beach.
- An adequate number of toilet or restroom facilities must be provided.
- The toilet or restroom facilities must be kept clean.
- The toilet or restroom facilities must have controlled sewage disposal.
- There should be no unauthorised camping, driving or dumping of waste on the beach.
- Access to the beach by dogs and other domestic animals must be strictly controlled.
- All buildings and beach equipment must be properly maintained.
- Coral reefs in the vicinity of the beach must be monitored.
- A sustainable means of transportation should be promoted in the beach area.

SAFETY AND SERVICES

- An adequate number of lifeguards and/or lifesaving equipment must be available at the beach.
- First aid equipment must be available on the beach.
- Emergency plans to cope with pollution risks must be in place.
- There must be management of beach users and events to prevent conflicts and accidents.
- There must be safety measures in place to protect beach users.
- A supply of drinking water should be available at the beach.
- Wheelchair access and accessibility features must be in place for at least one Blue Flag beach in each municipality.